

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Adrian P. Wise

Filed: February 8, 2001

For: MULTISTANDARD VIDEO
 DECODER AND DECOMPRESSION
 SYSTEM FOR PROCESSING
 ENCODED BIT STREAMS INCLUDING
 CIRCUITRY FOR SELECTING TOKENS
 AND METHODS RELATING THERETO

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Application No.: Not Yet Known

Art Unit: 2783 (anticipated)

Examiner: Follansbee, J. (anticipated)

Attorney Docket No.:

94100422(EP)USC1X1C1D11 PDDD

COMMUNICATION - SUBMISSION OF FORMAL DRAWINGS

BOX PATENT APPLICATION

Assistant Commissioner of Patents

Washington DC 20231

Sir:

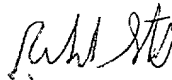
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Transmitted herewith are 169 formal drawings on 124 sheets.

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Respectfully submitted,

DISCOVISION ASSOCIATES

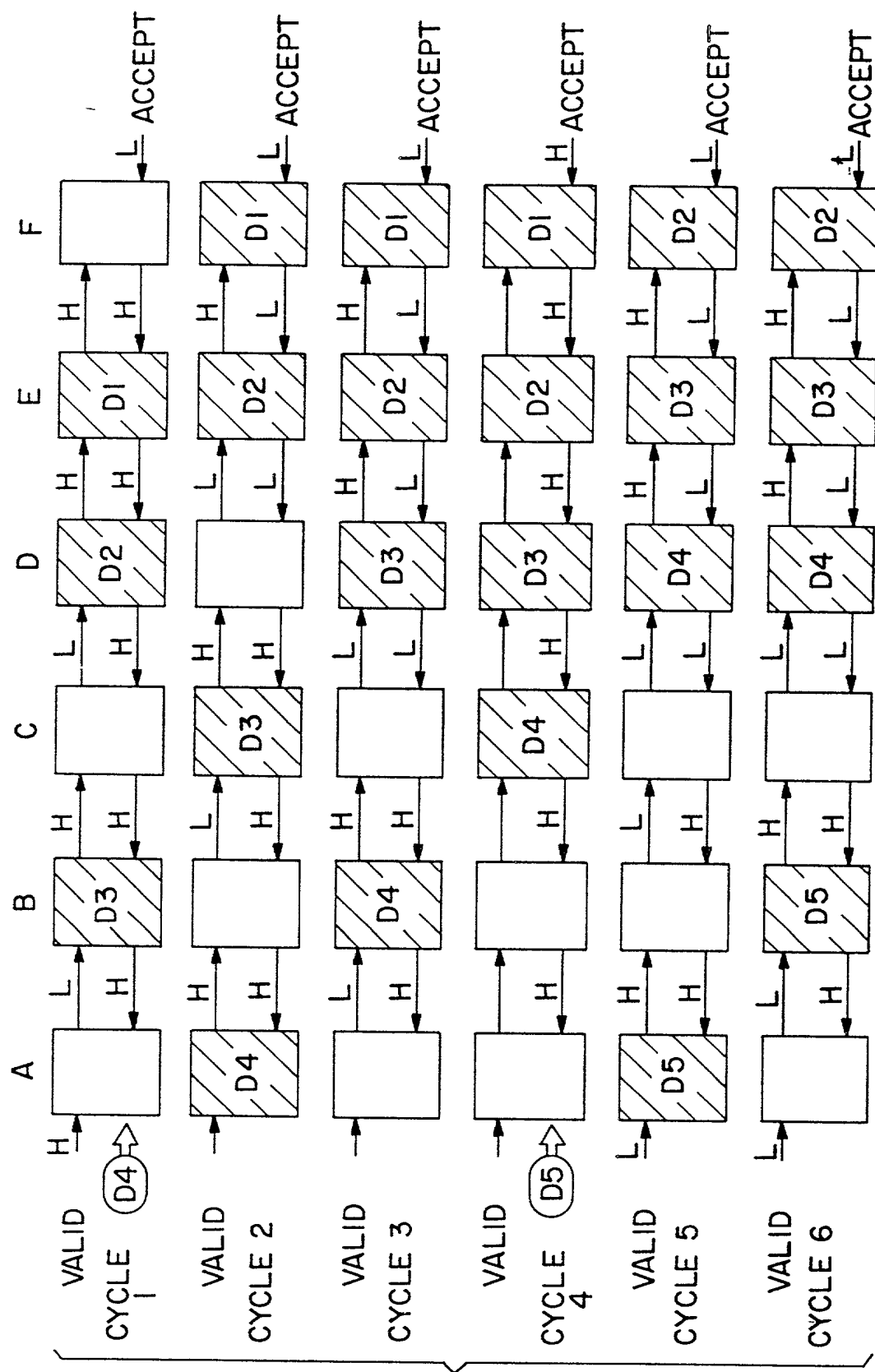


Date: 2/8/01

Richard Stokey
 Reg. No. 40,383

DISCOVISION ASSOCIATES
 INTELLECTUAL PROPERTY DEVELOPMENT
 P.O. Box 19616
 Irvine, California 92623
 (949) 660-5006

RS:sd



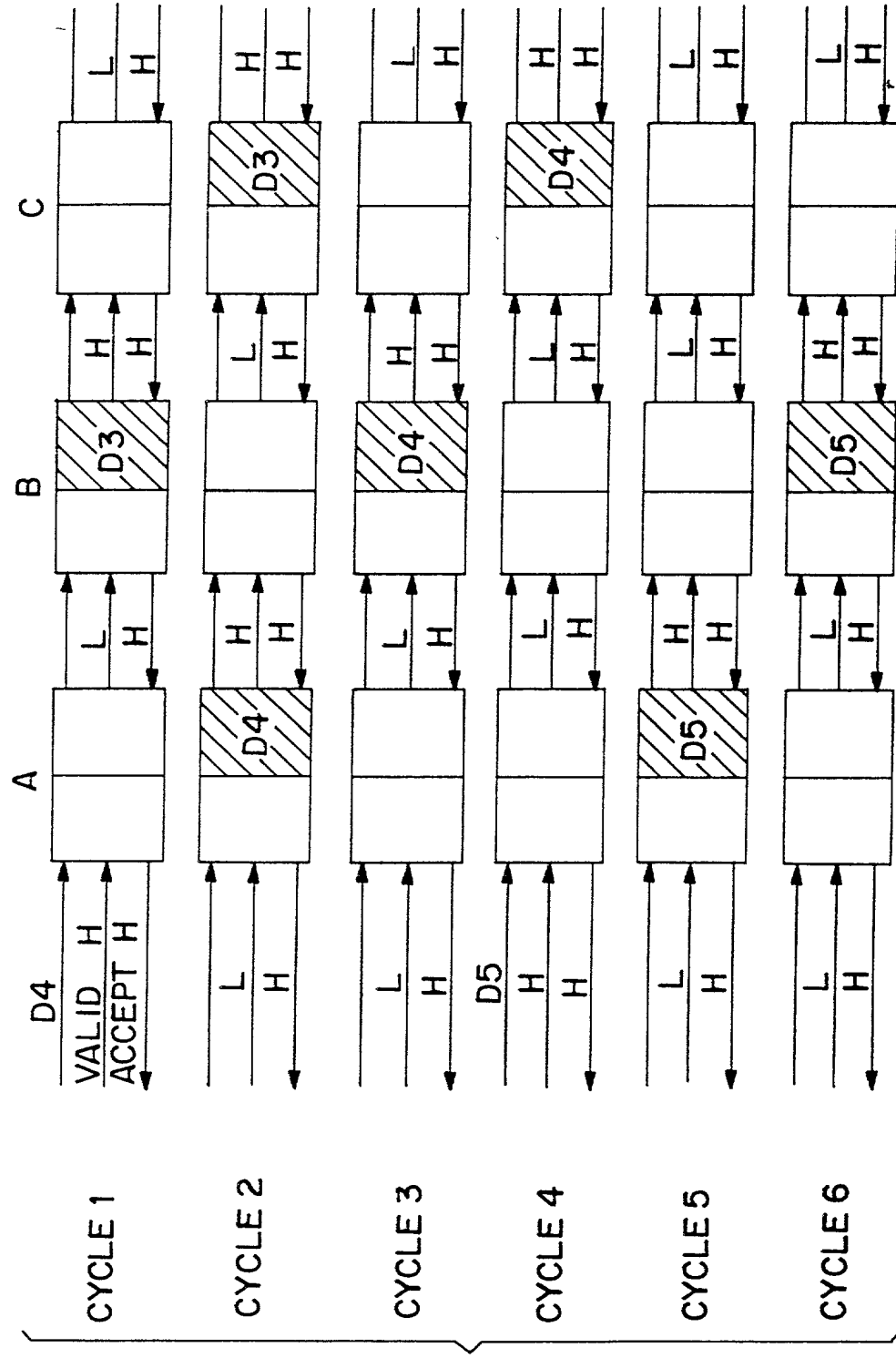
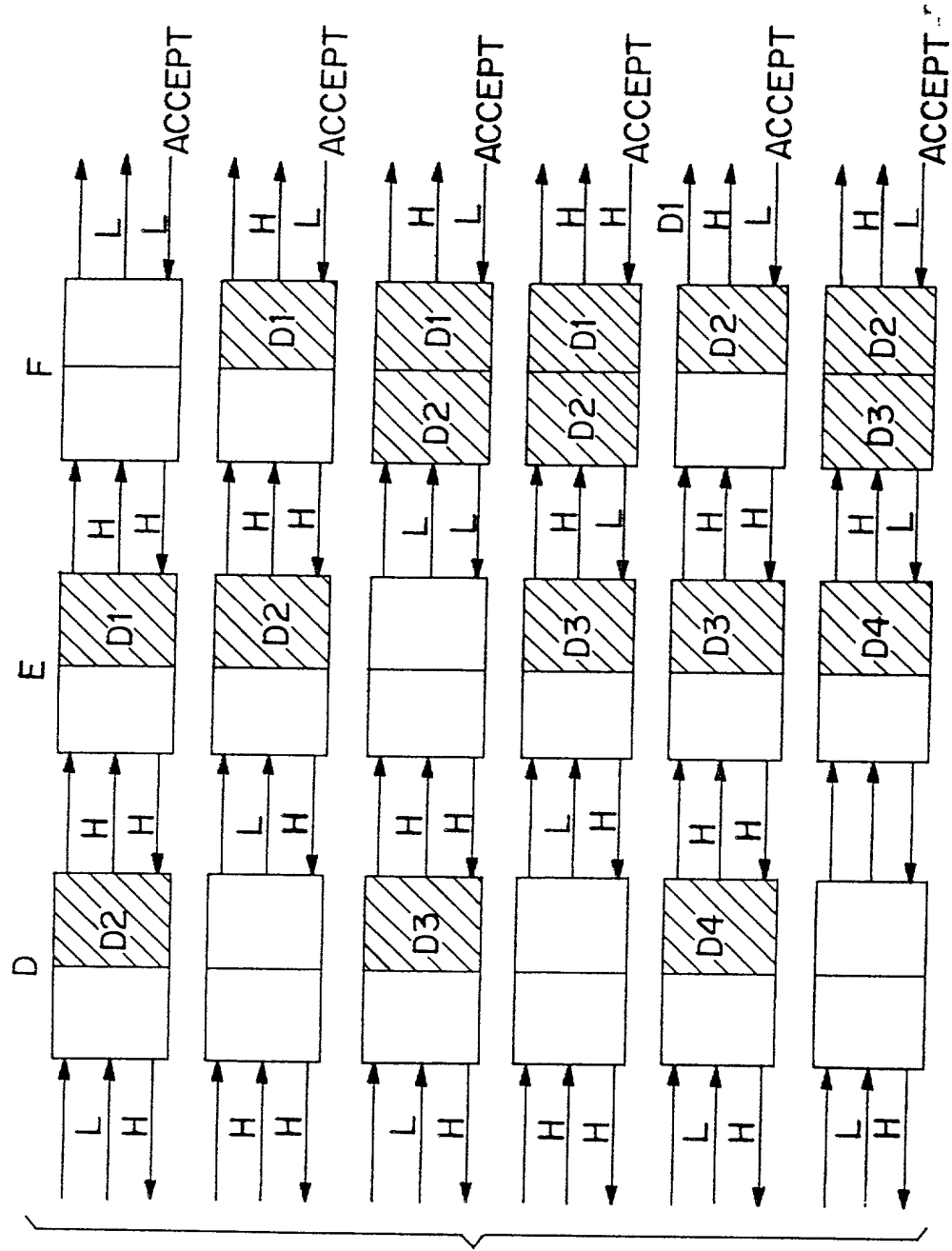
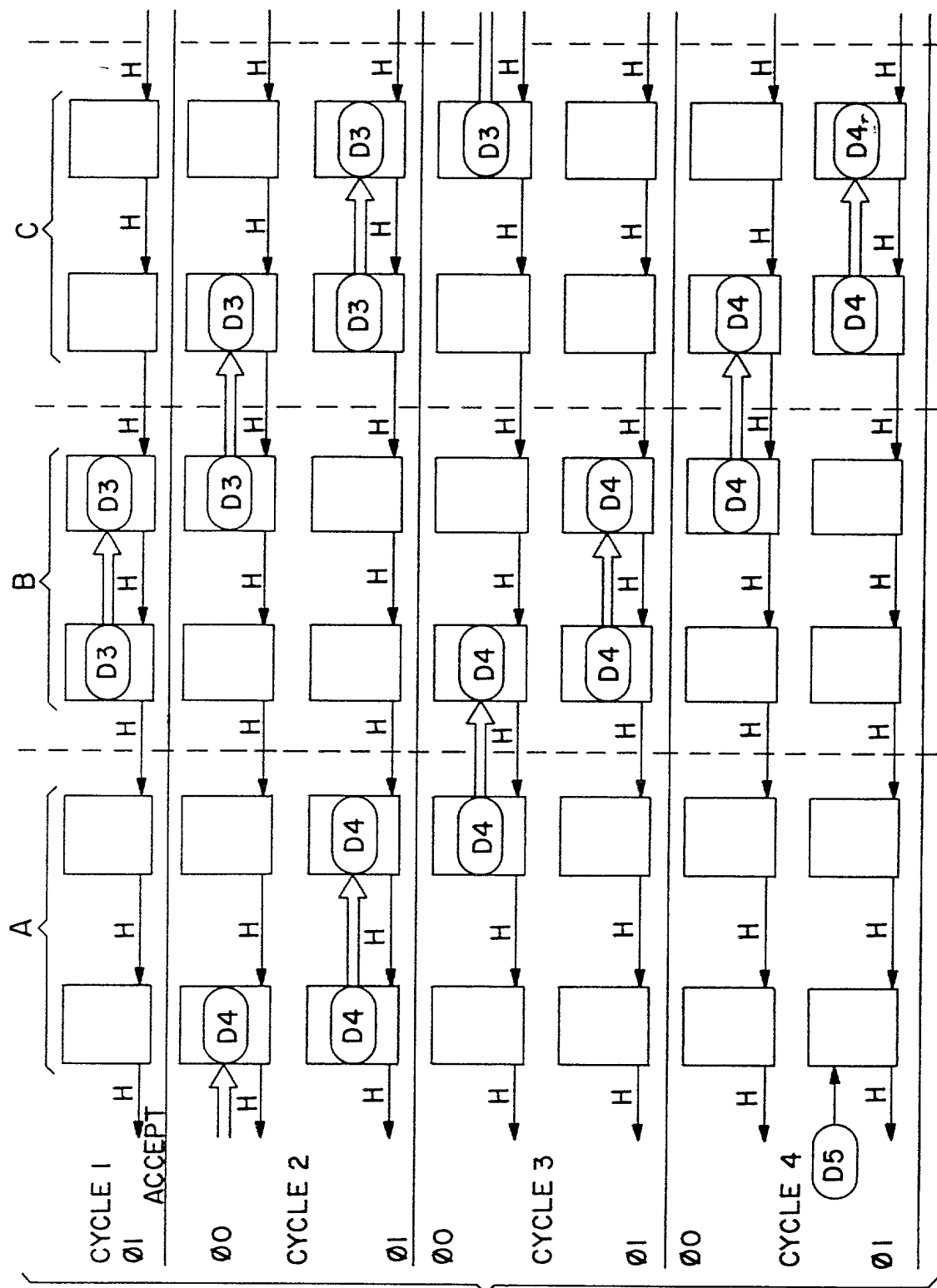


FIG.2(A)





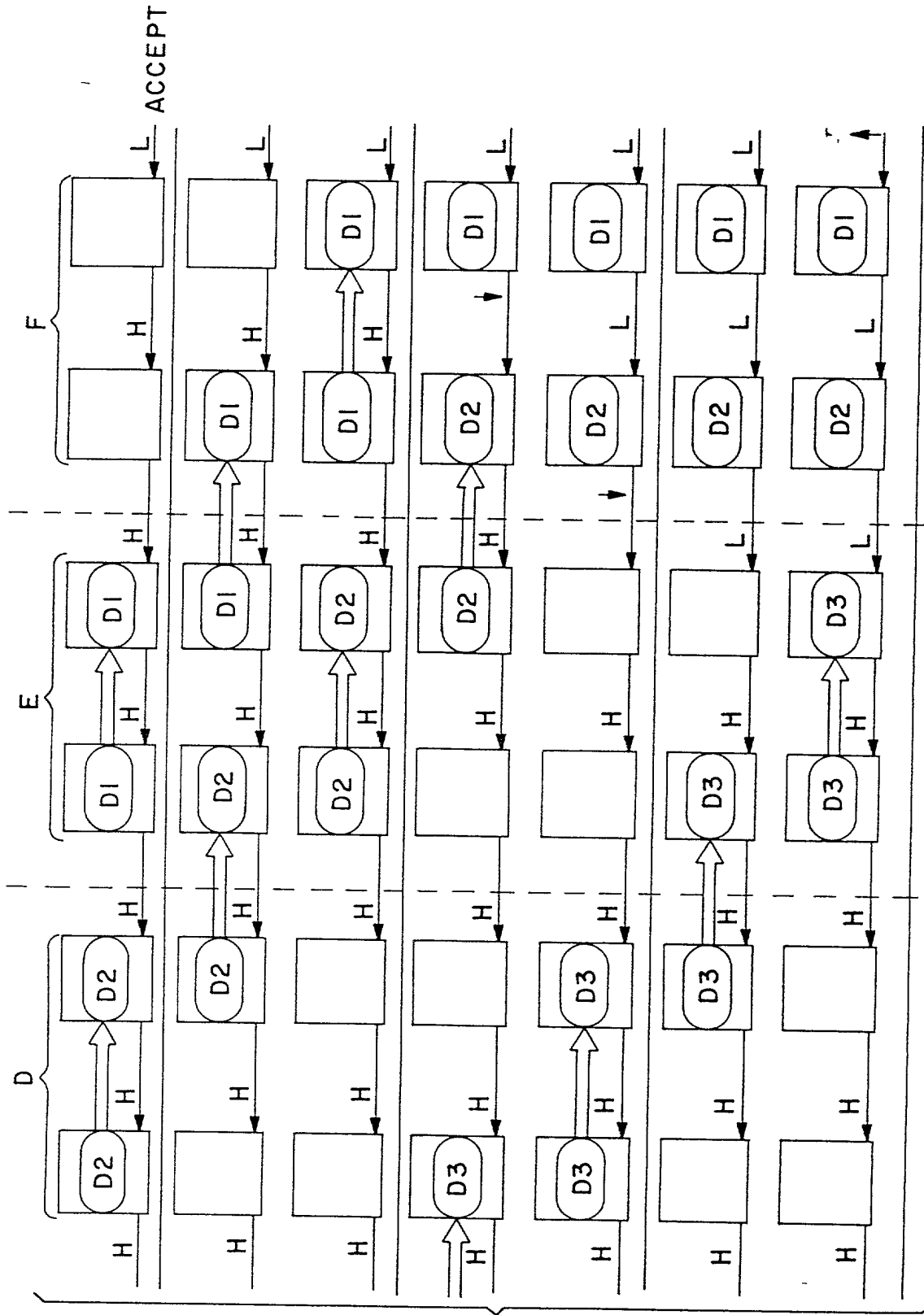


FIG. 3A-2

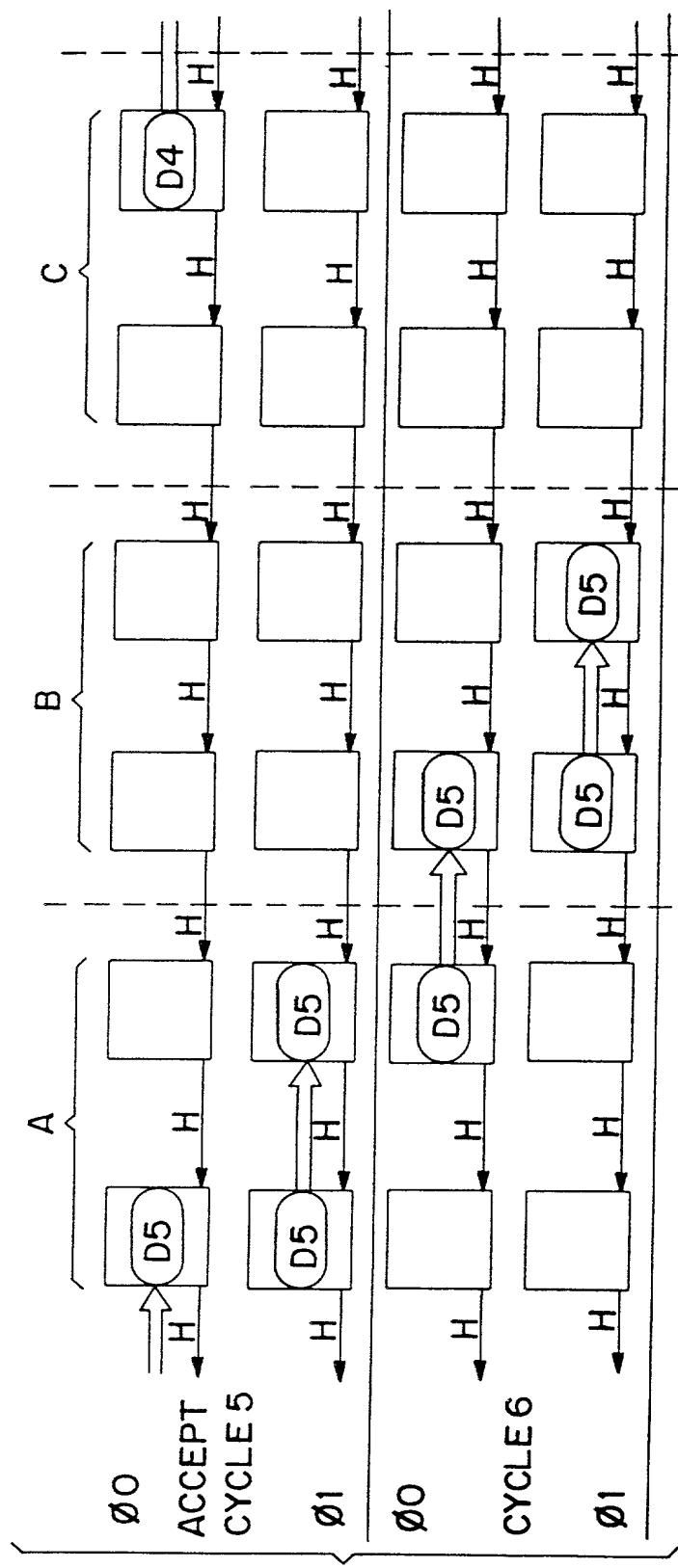


FIG. 3B-1

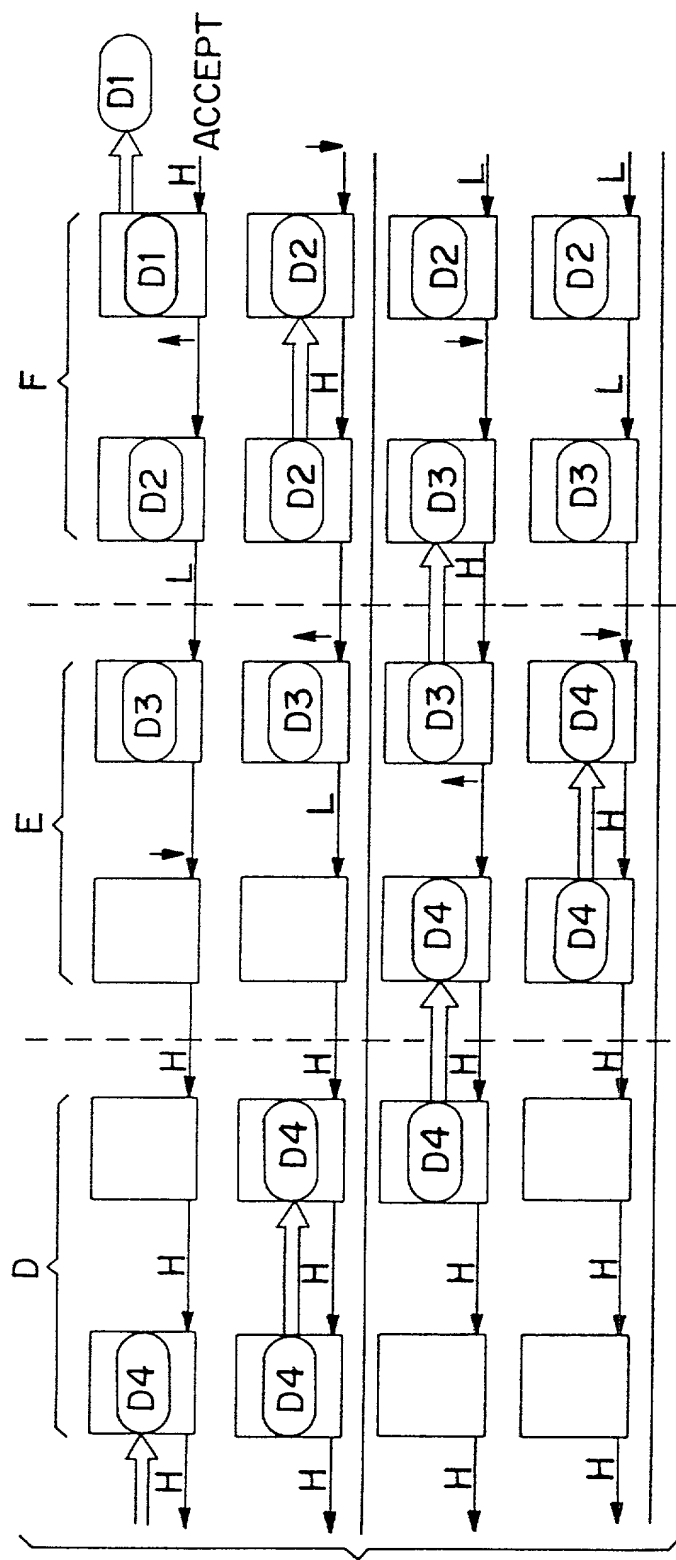


FIG. 3B-2

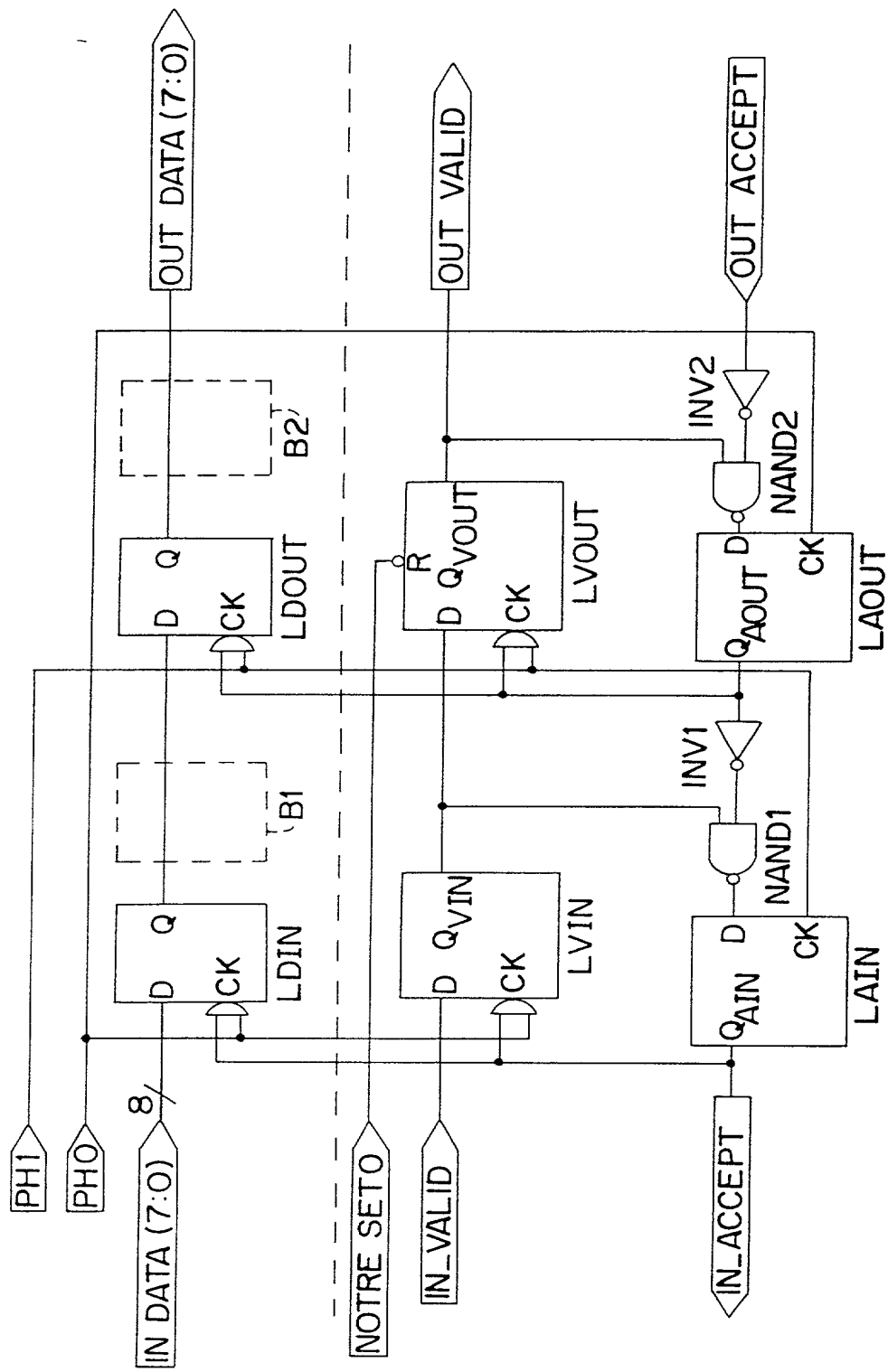
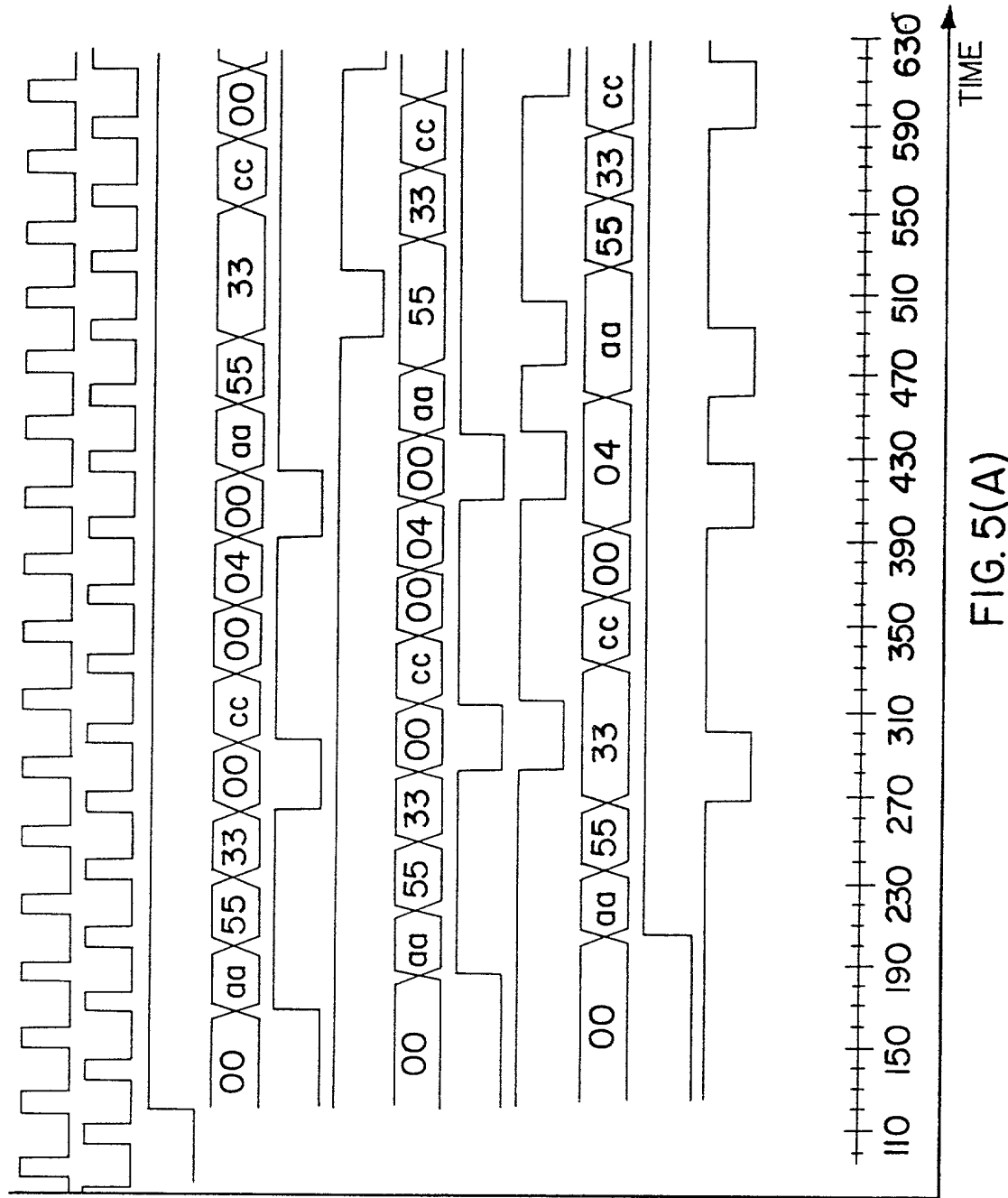


FIG. 4



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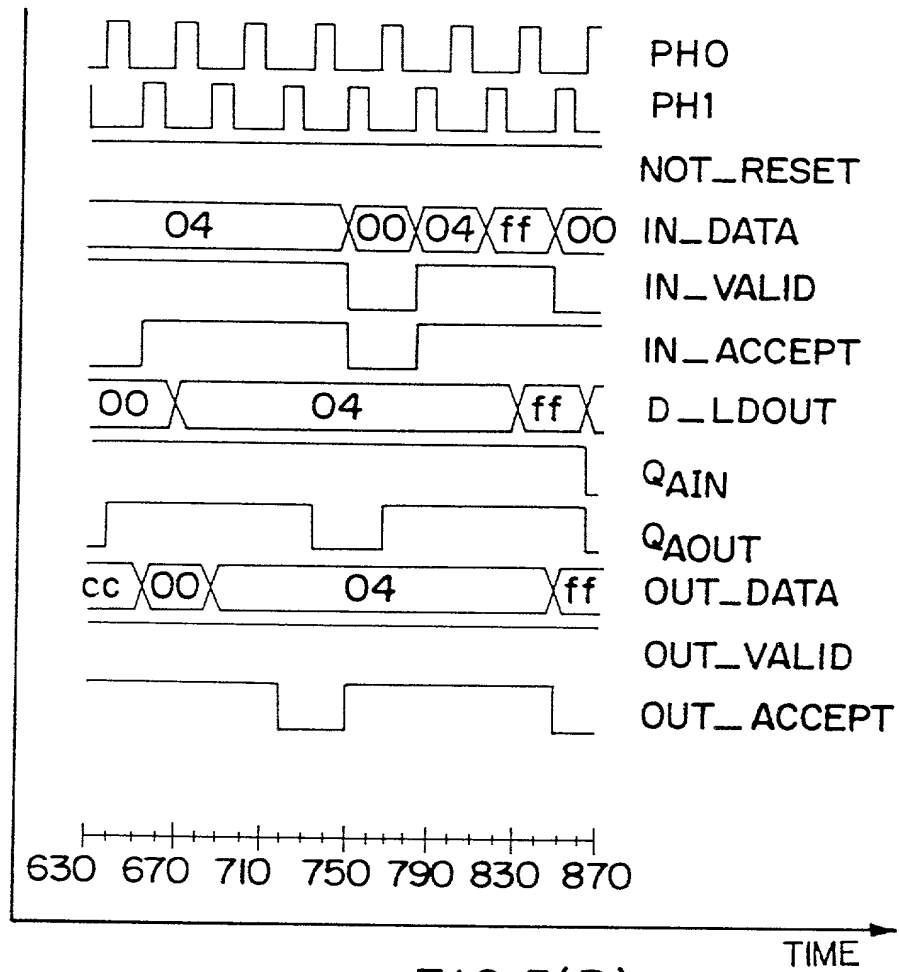


FIG. 5(B)

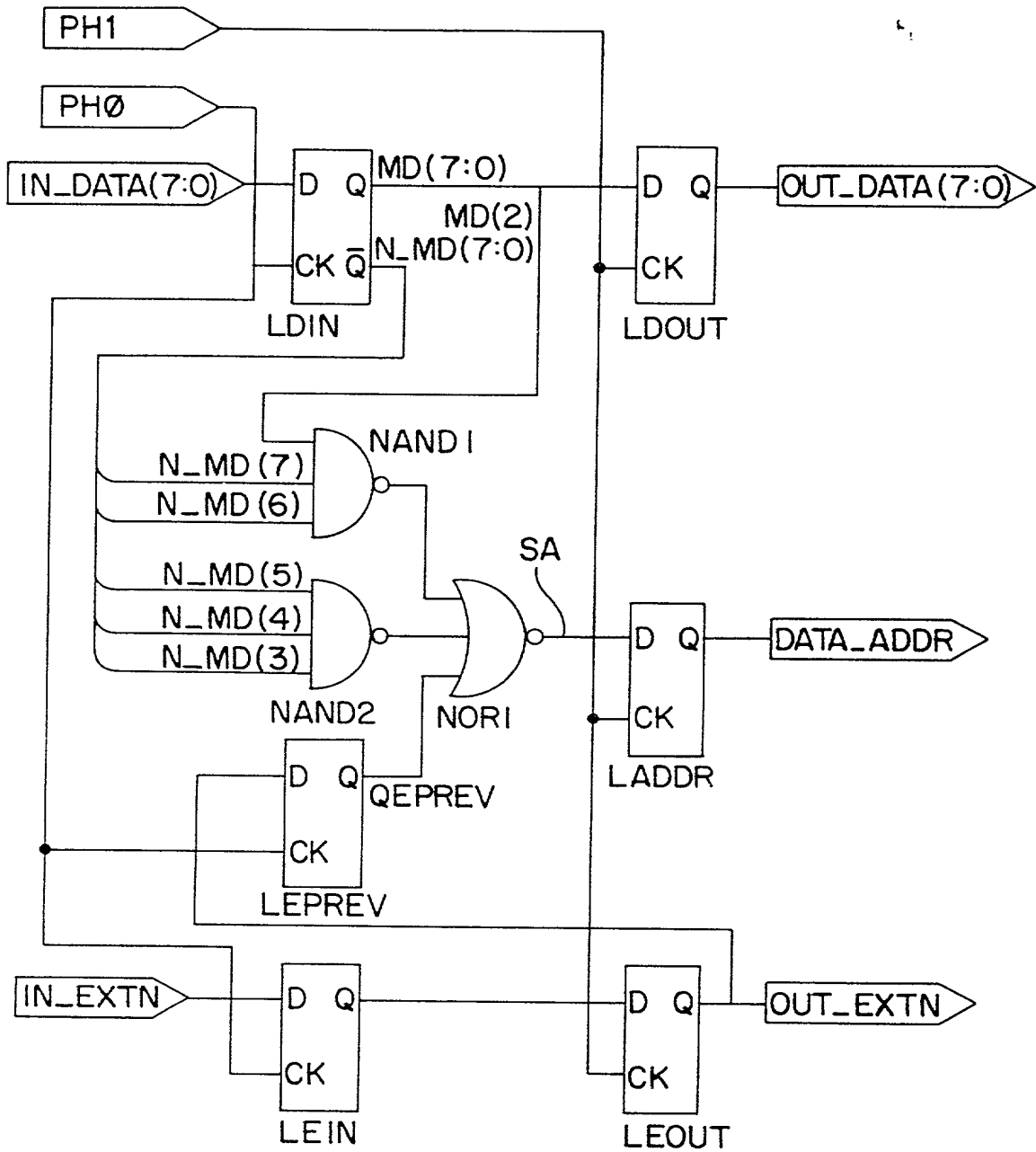


FIG. 6

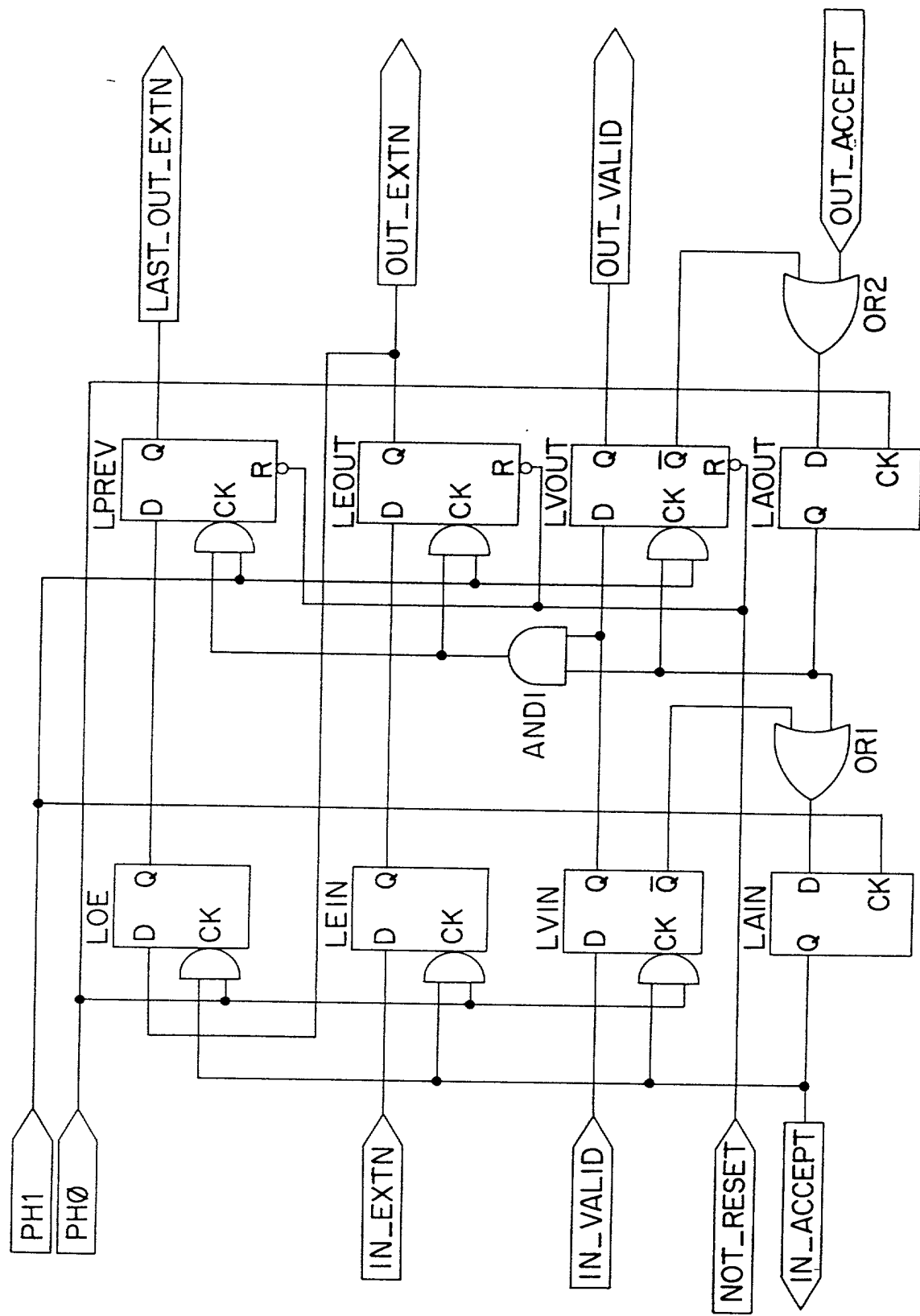


FIG. 7

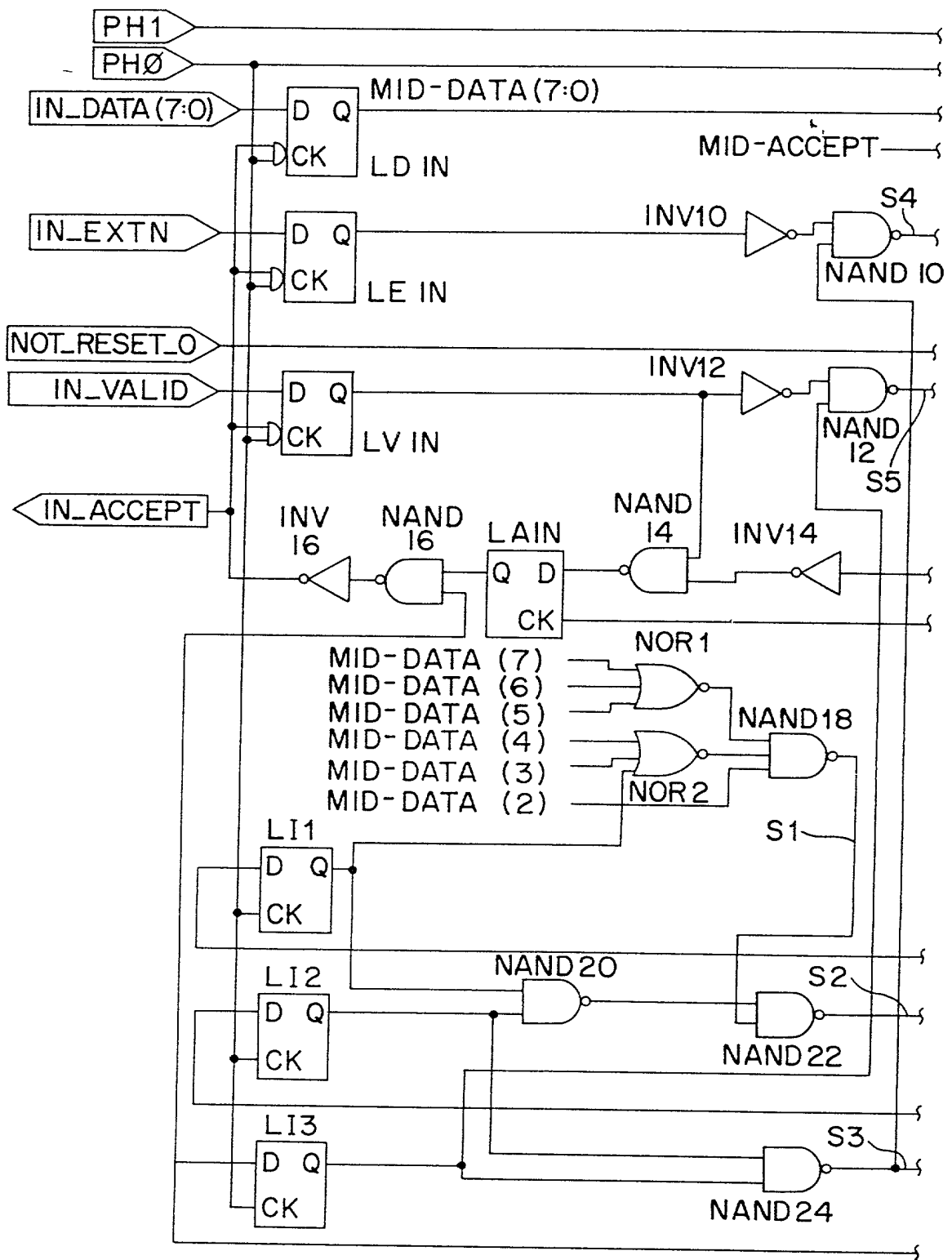


FIG. 8(A)

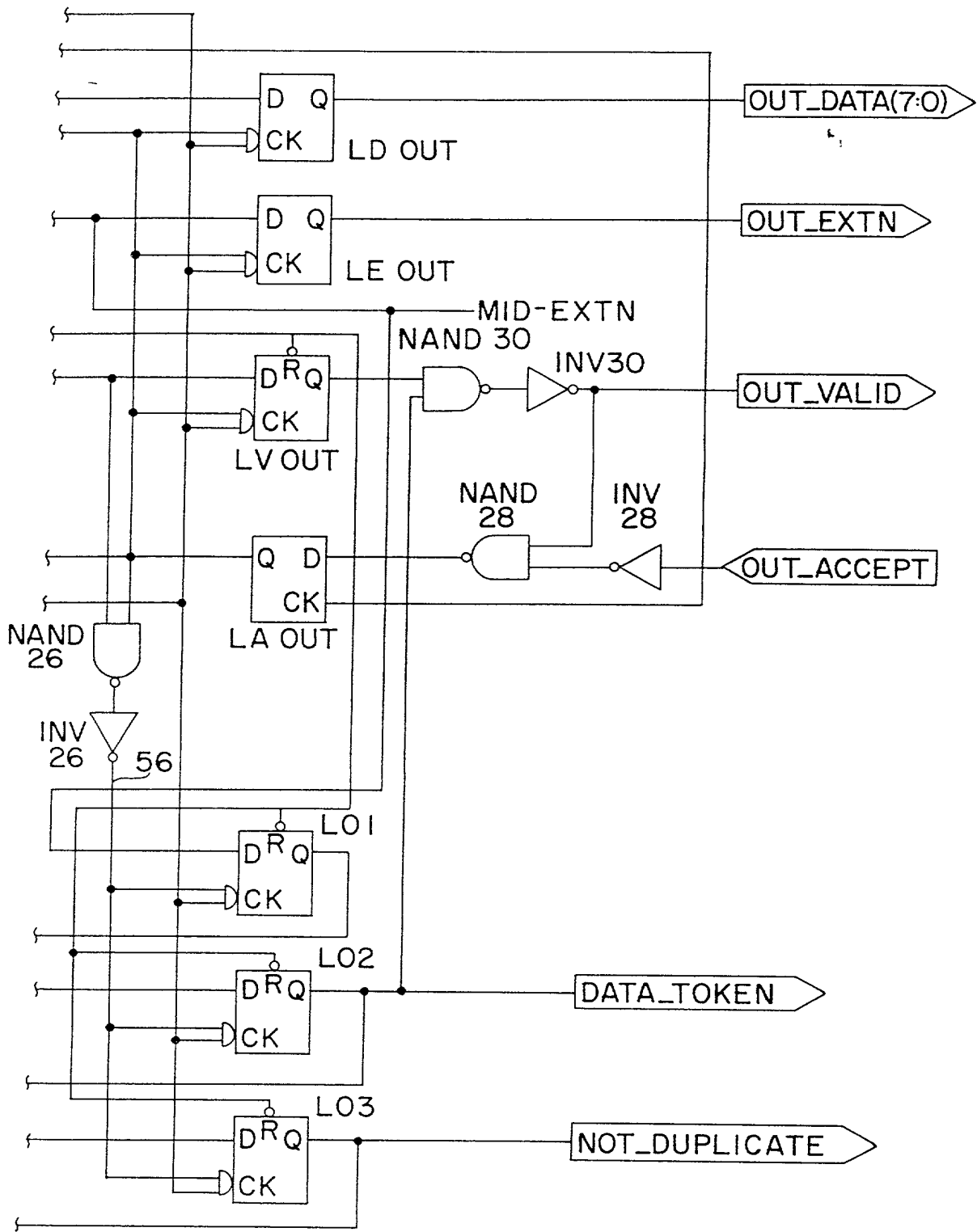


FIG. 8(B)

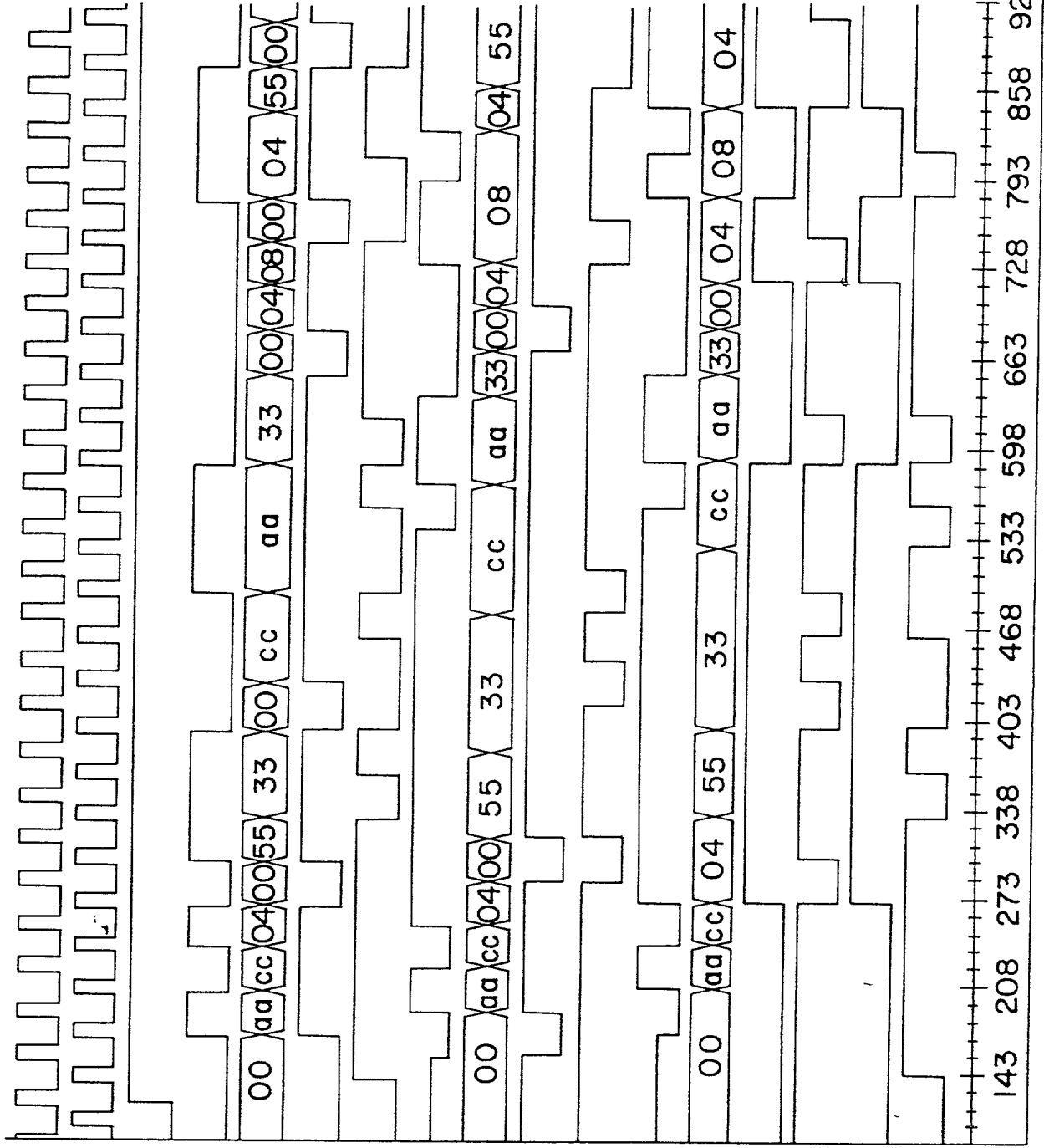


FIG. 9(A)

TIME

FIG. 9(B)

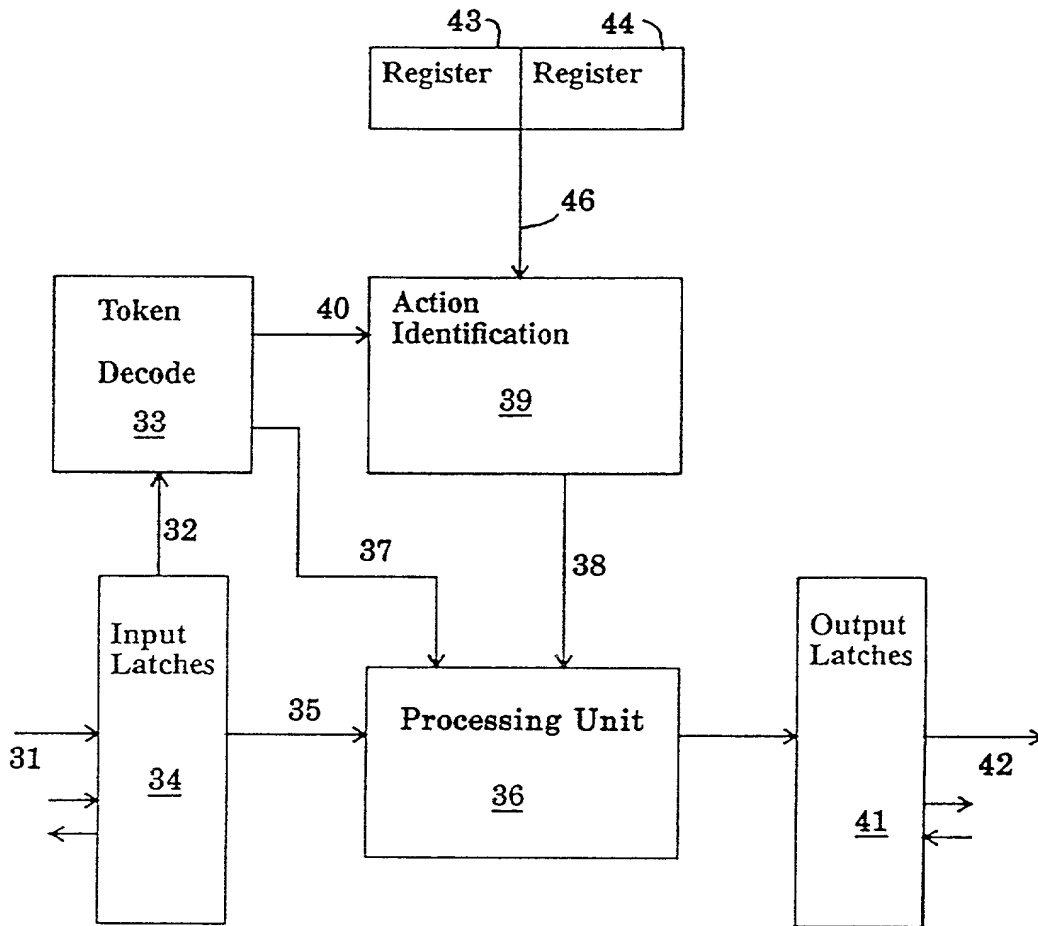


FIG. 10

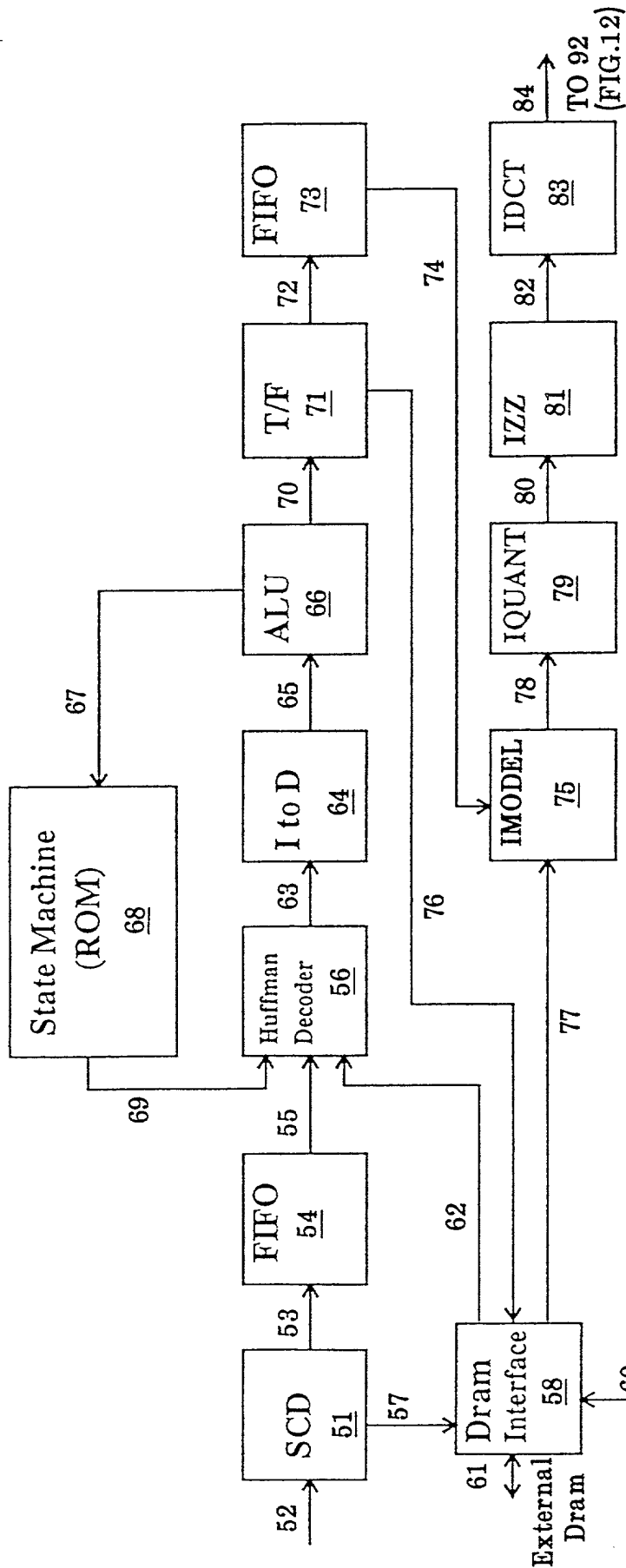


FIG. 11

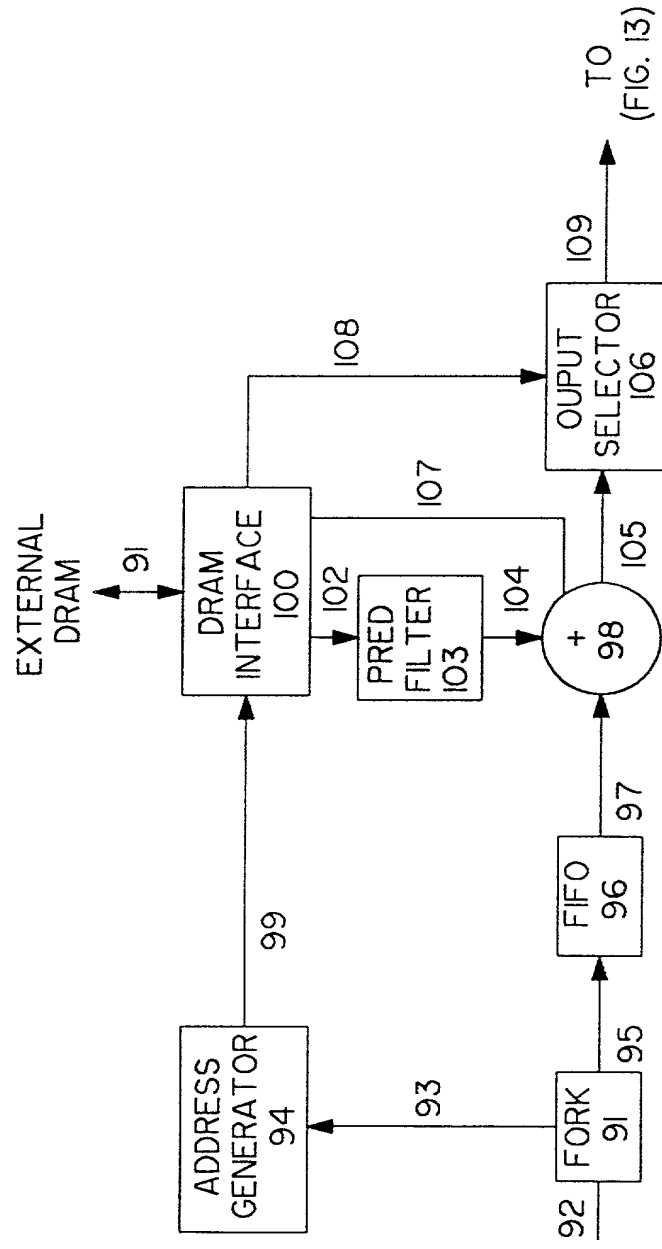


FIG. 12

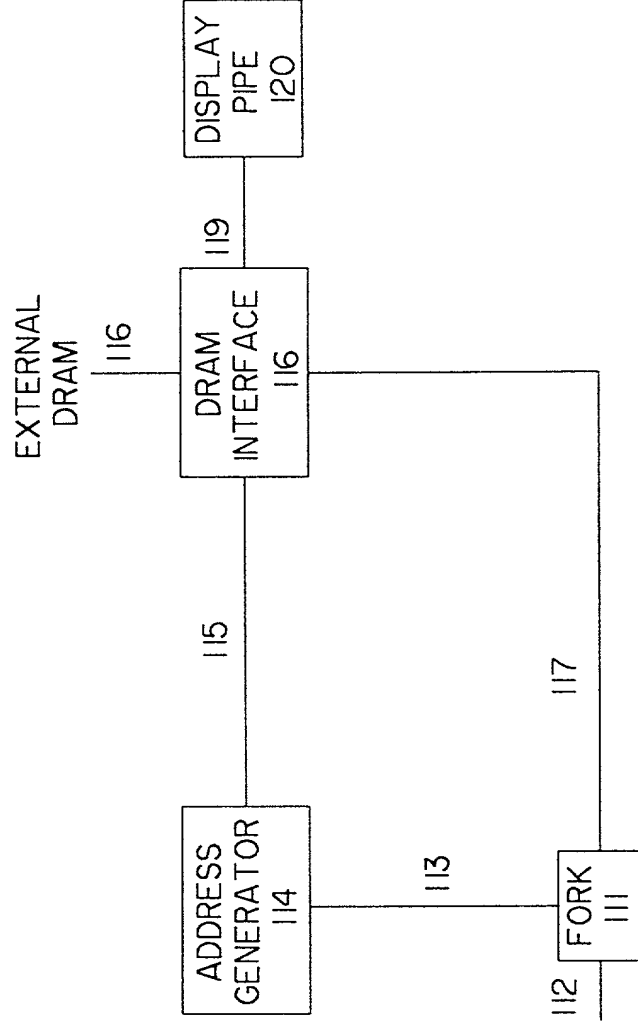
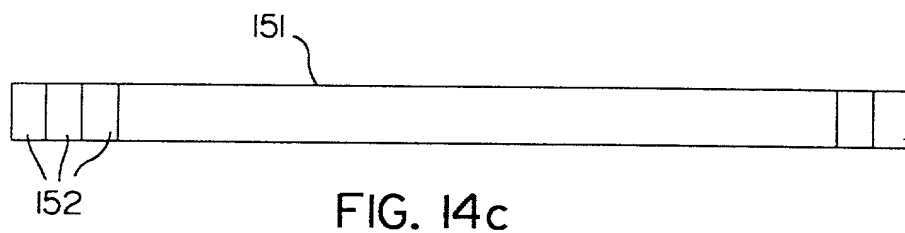
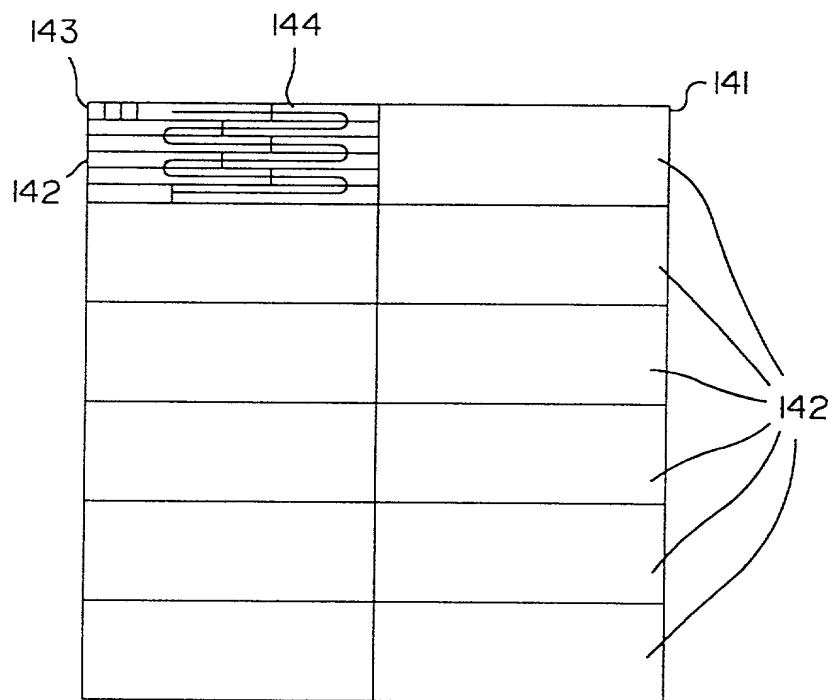
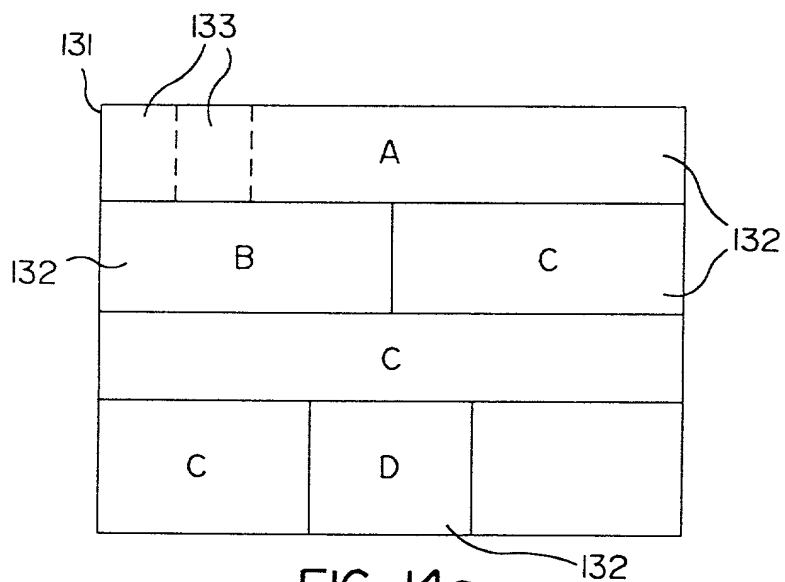


FIG. 13



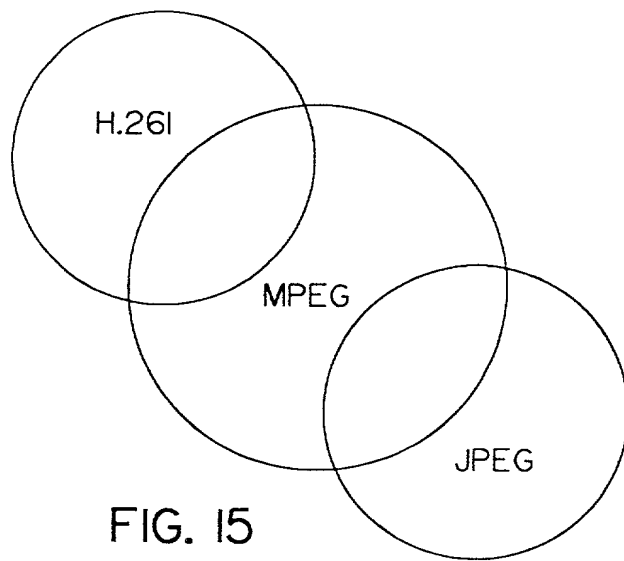


FIG. 15

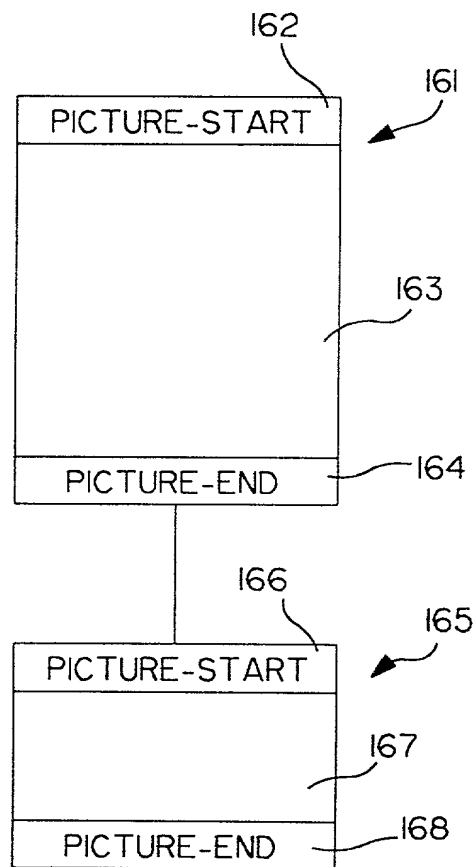


FIG. 16

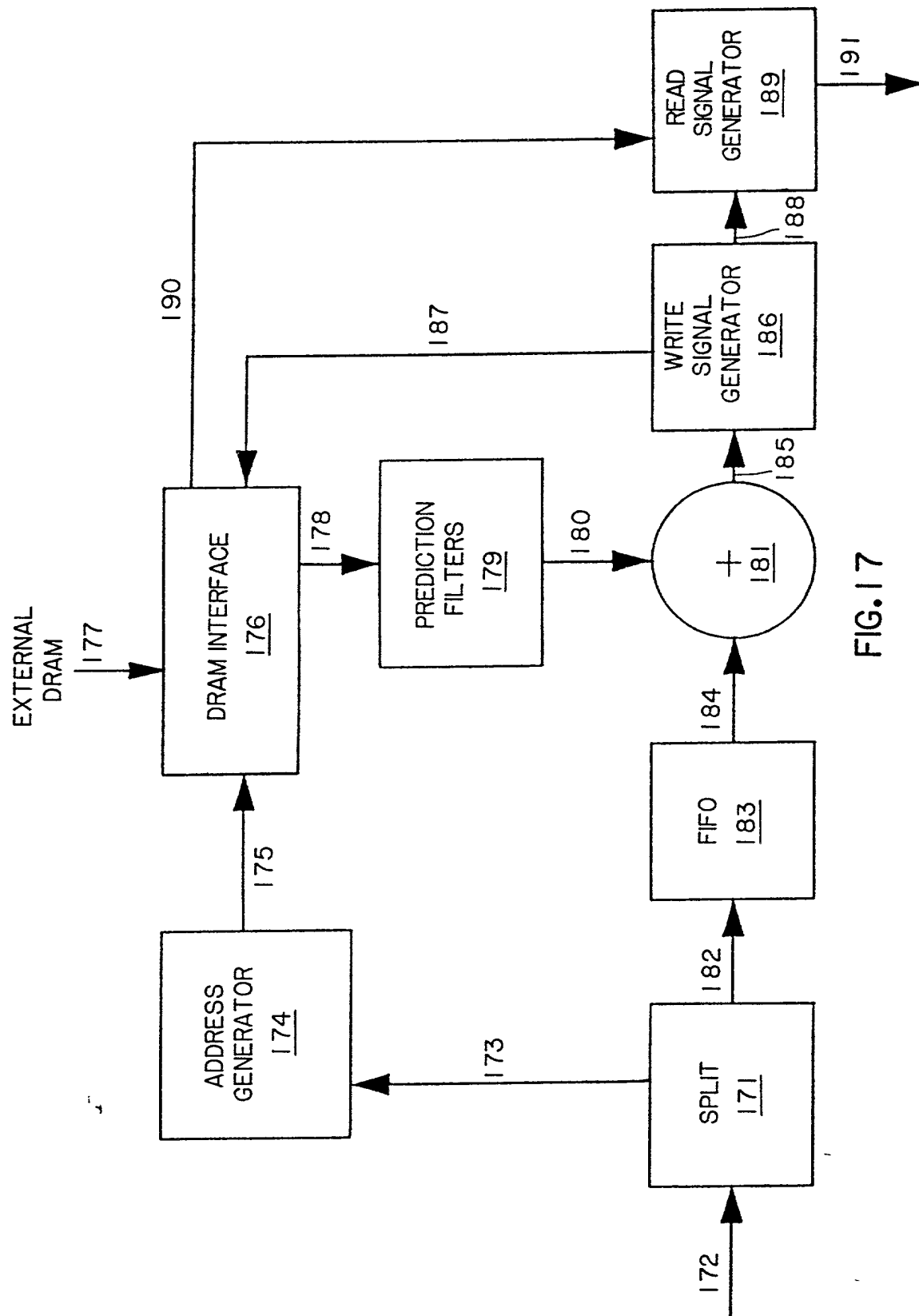


FIG. 17

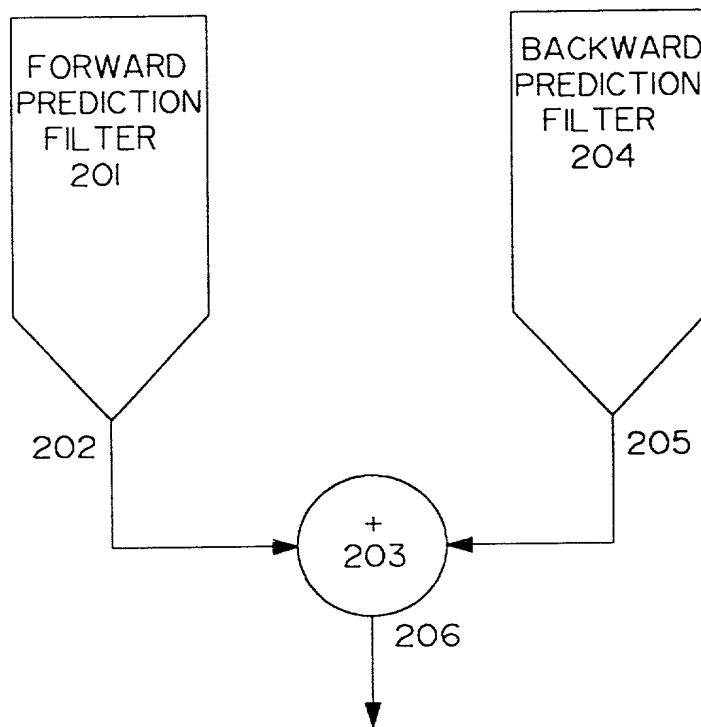


FIG. 18

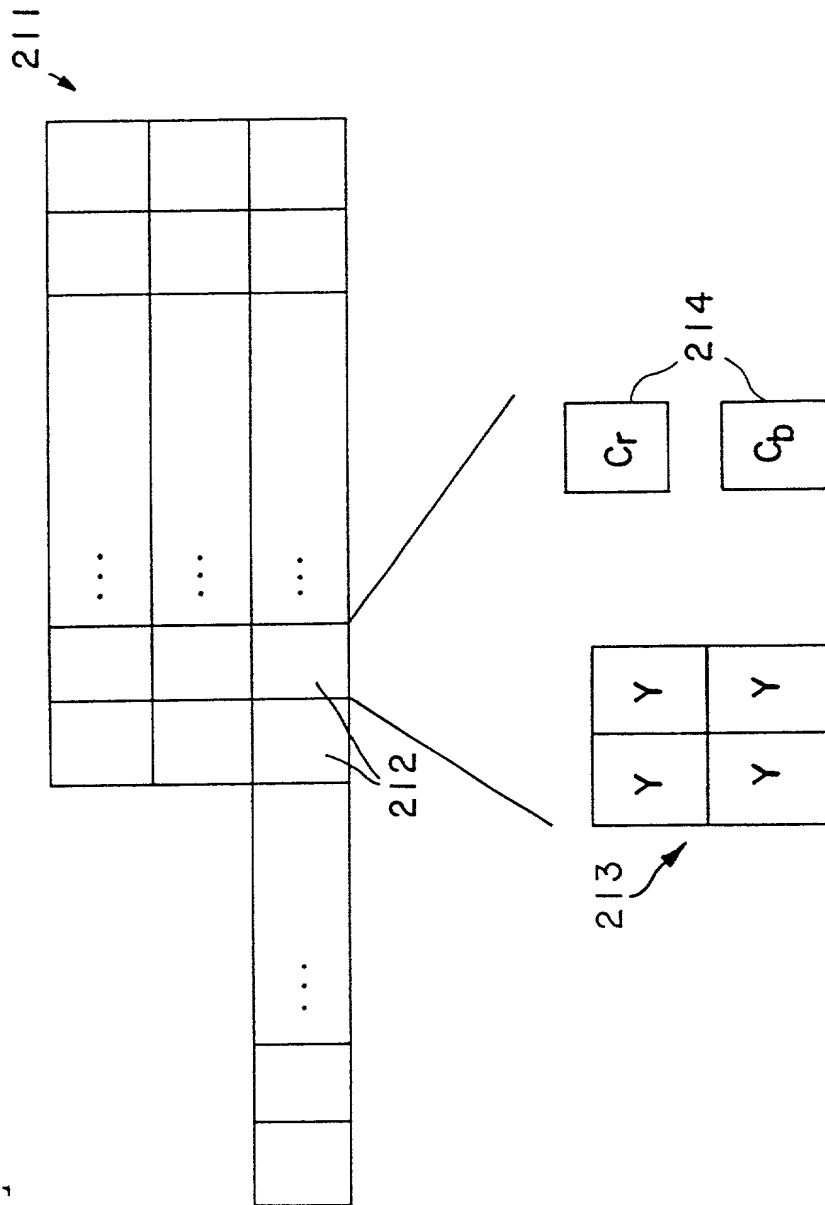


FIG. 19

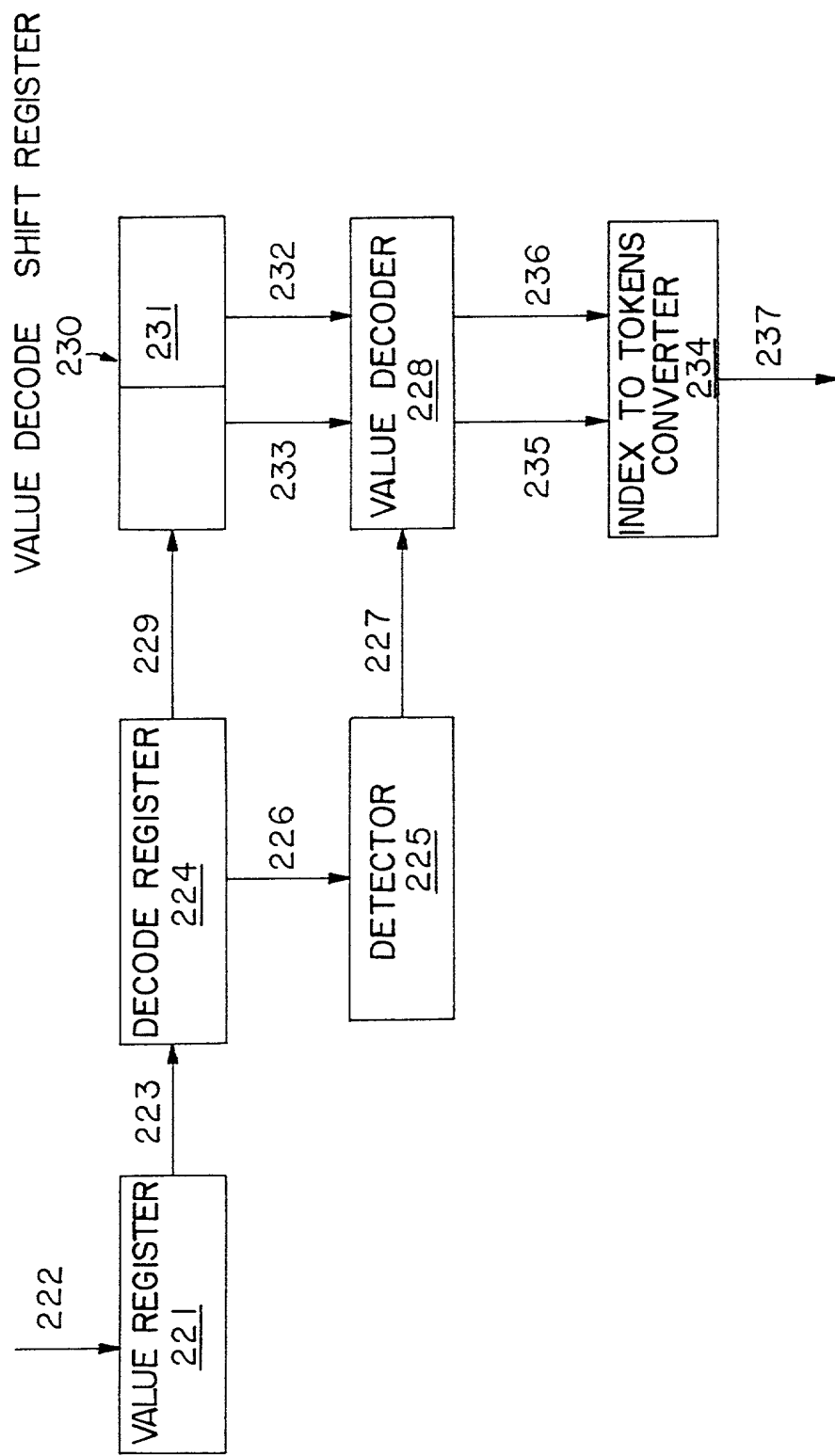


FIG.20

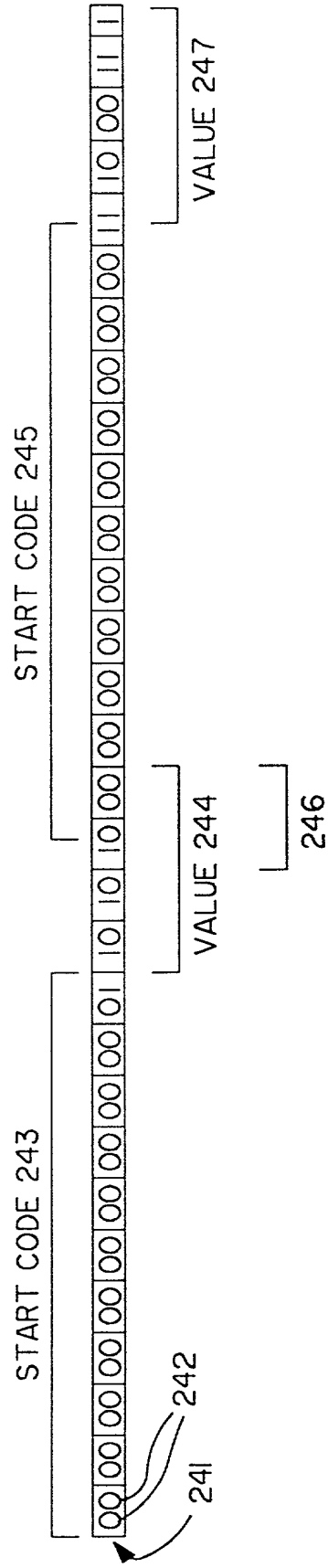


FIG. 21

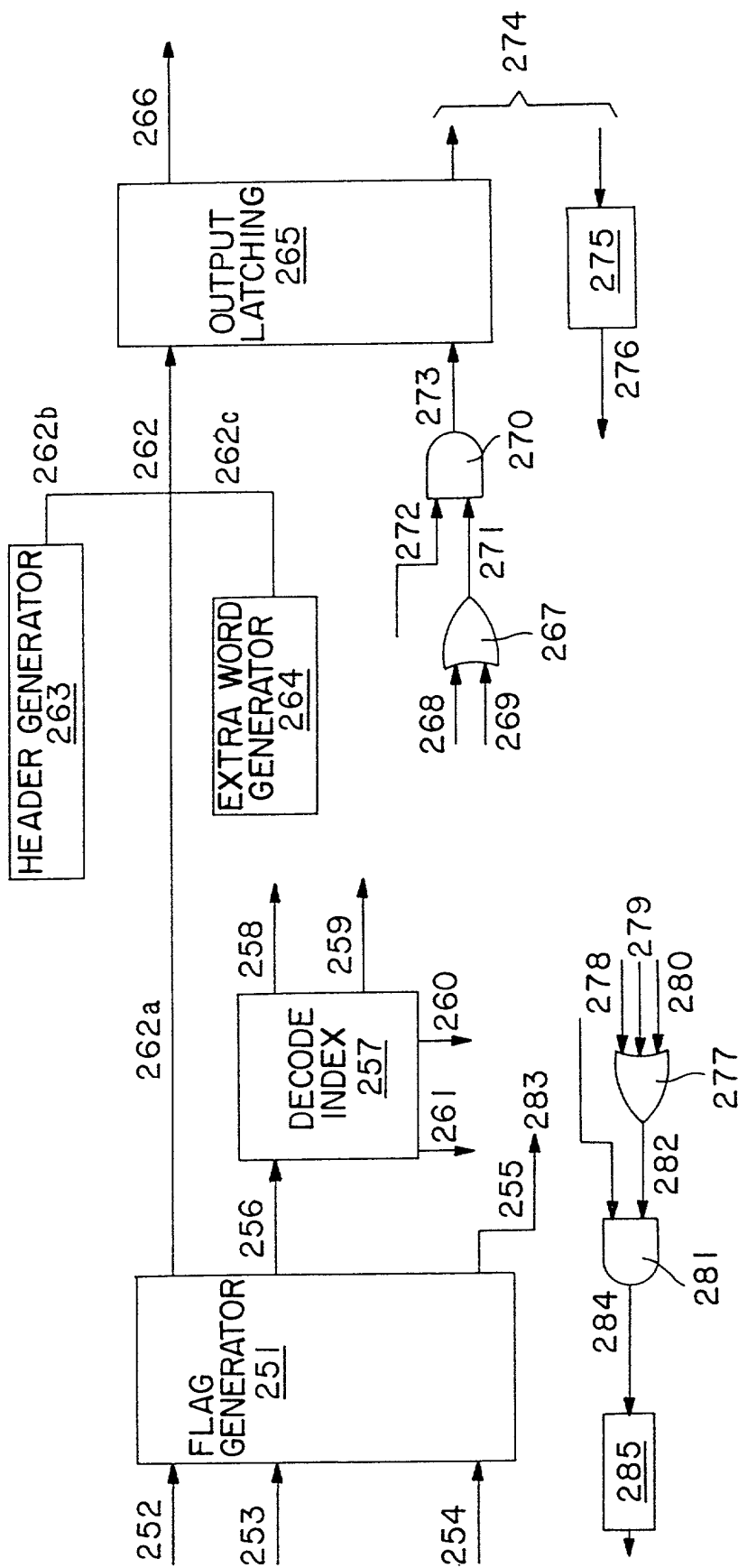


FIG. 22

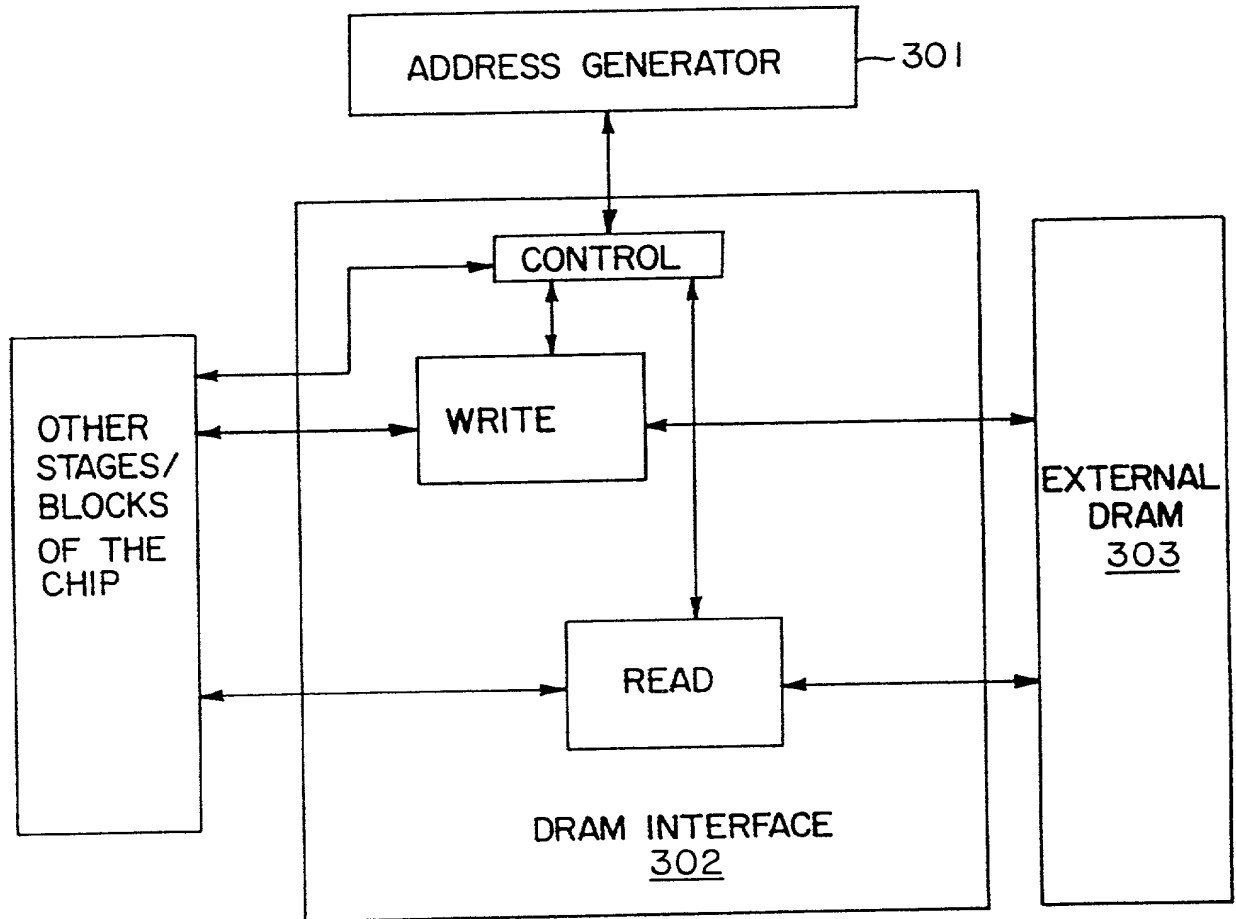


FIG.23

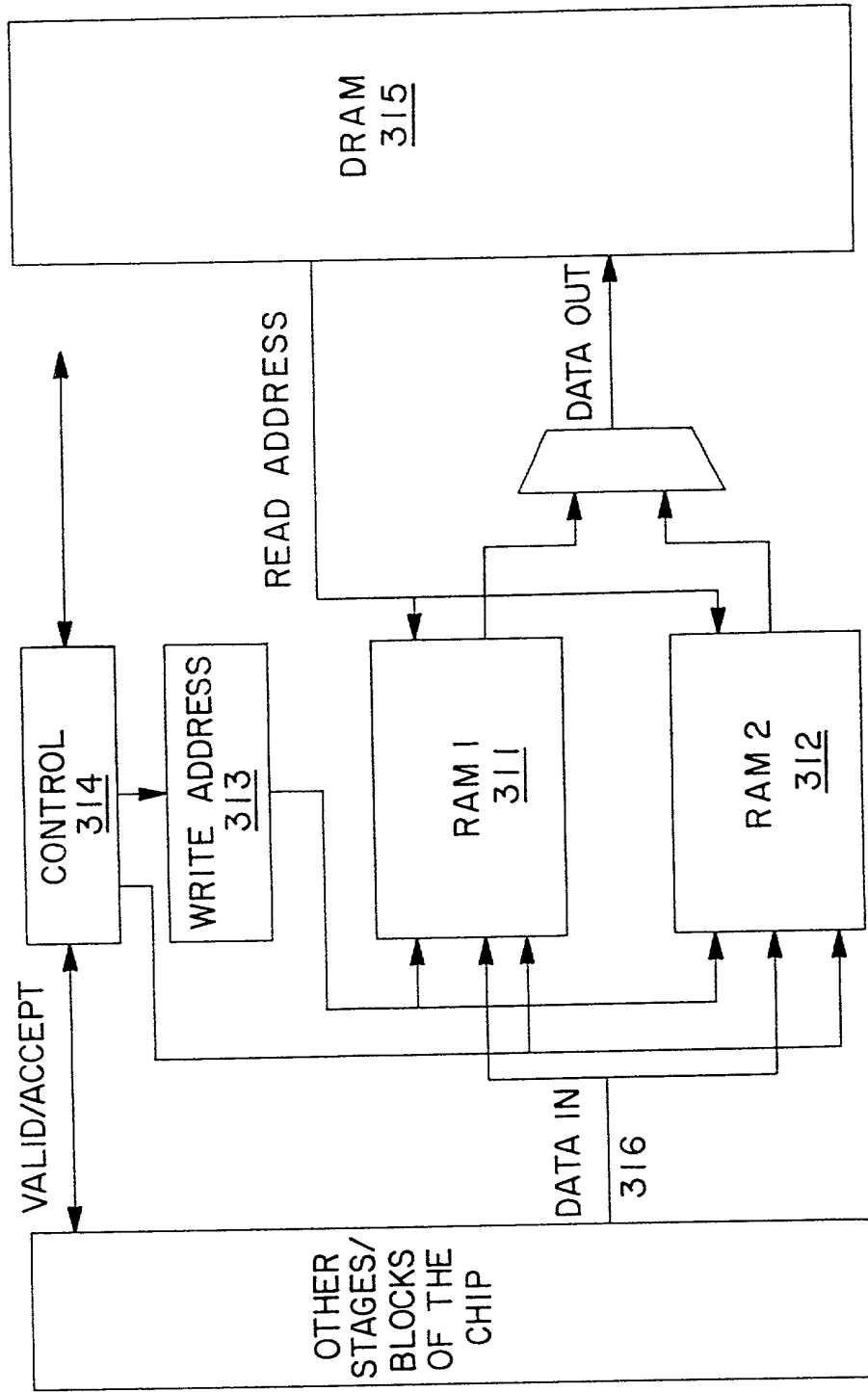


FIG. 24

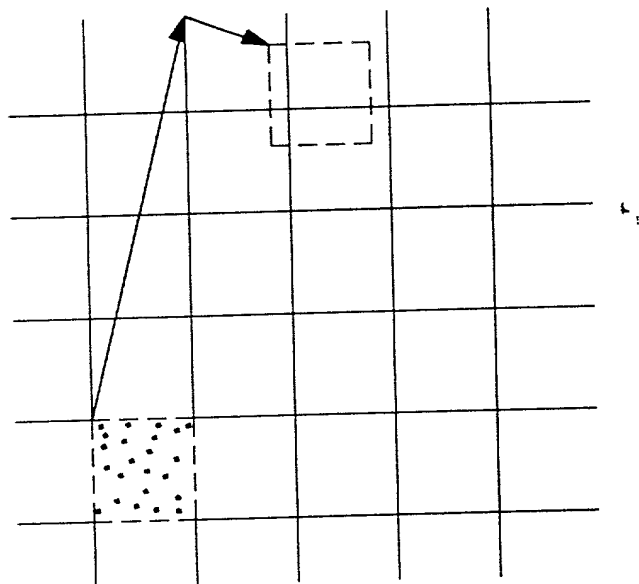


FIG. 25

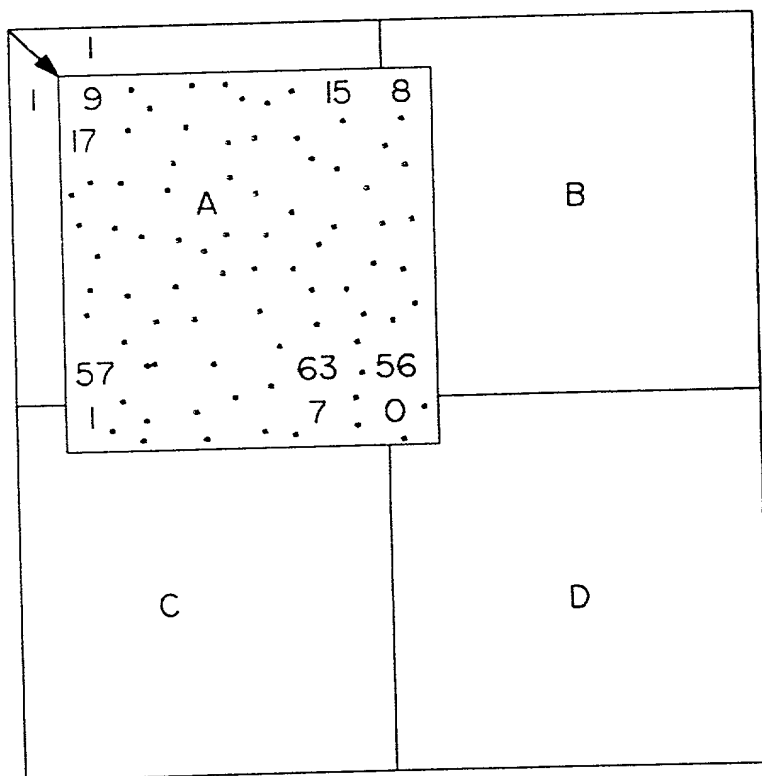


FIG. 26

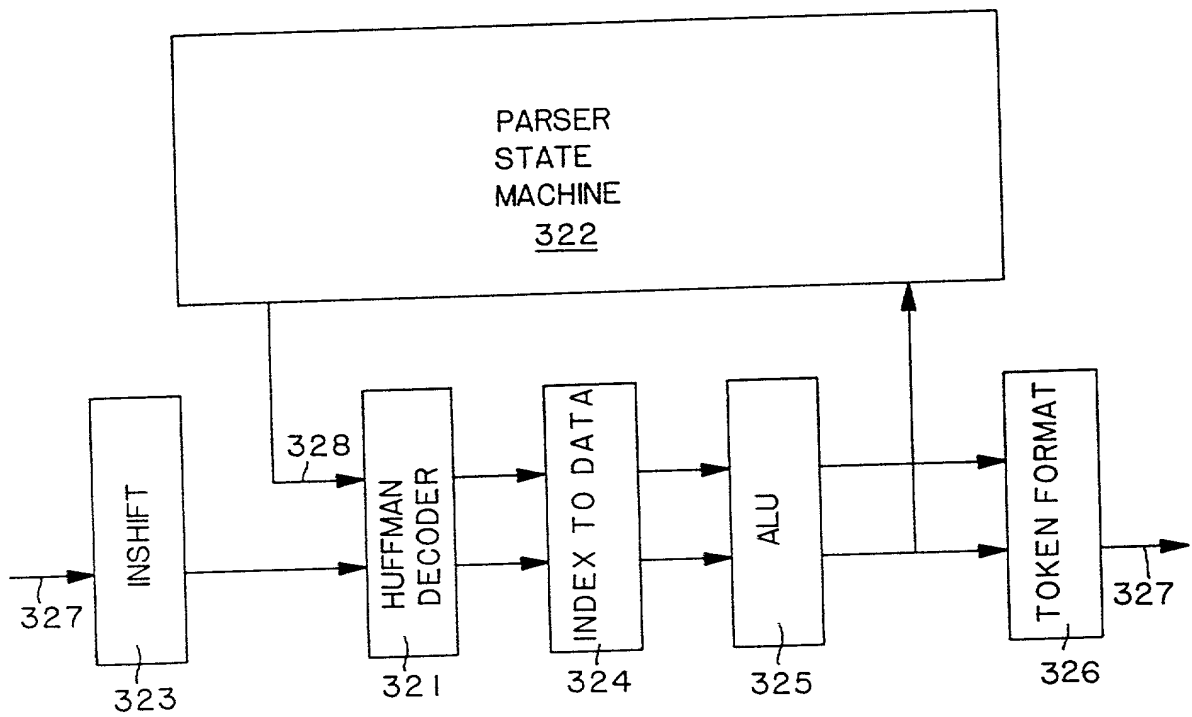


FIG.27

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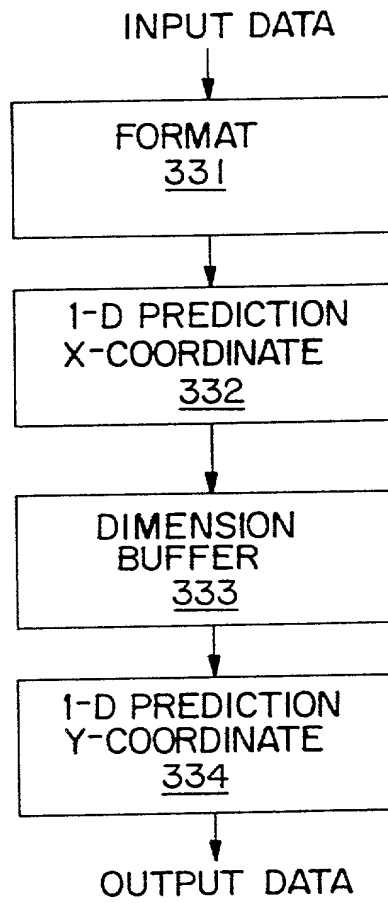


FIG.28

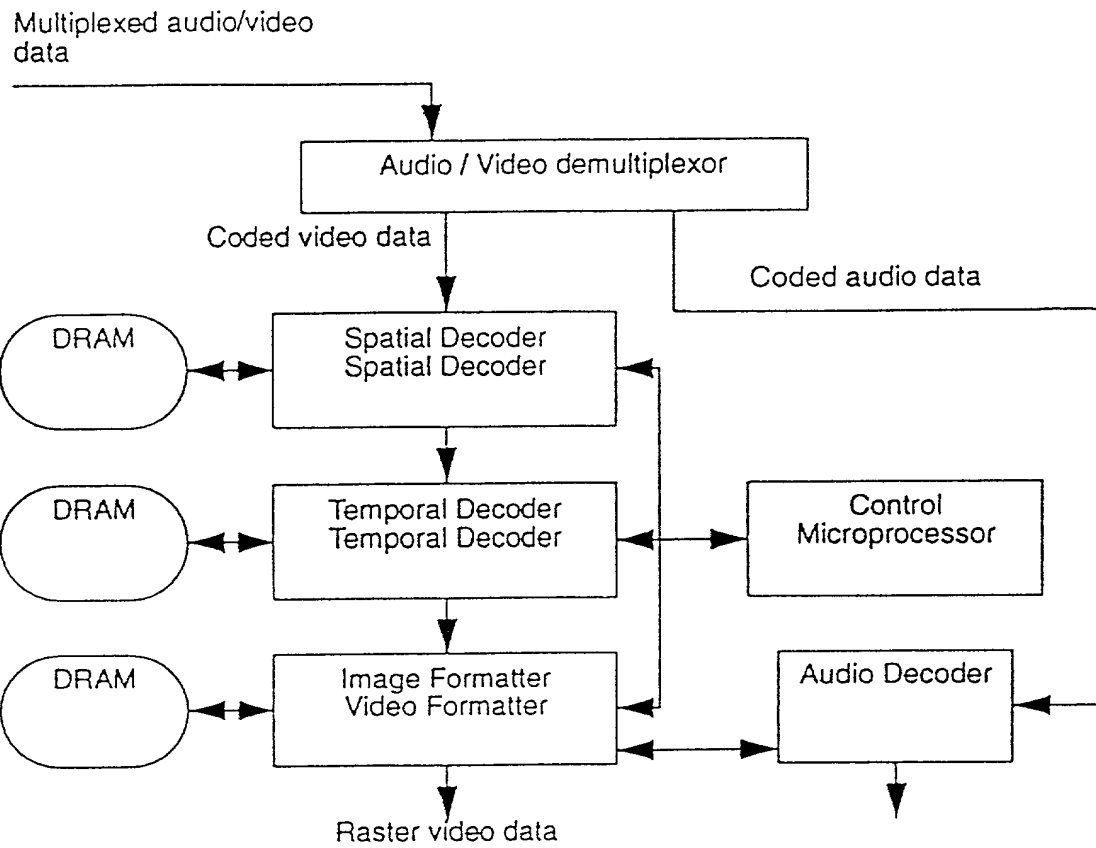


FIG.29

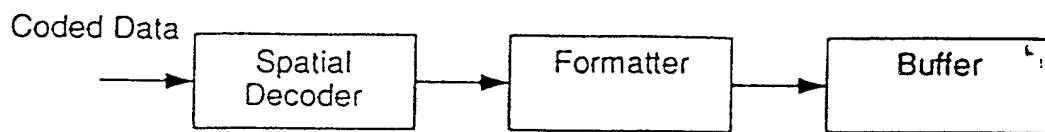


FIG.30

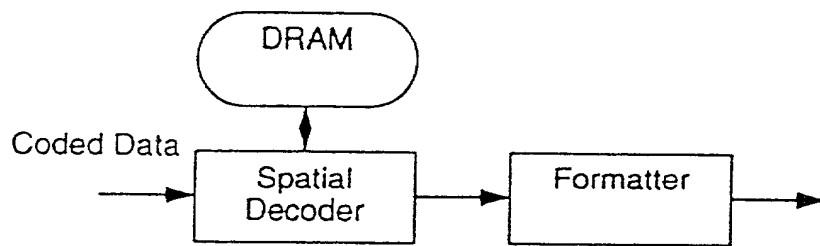


FIG.31

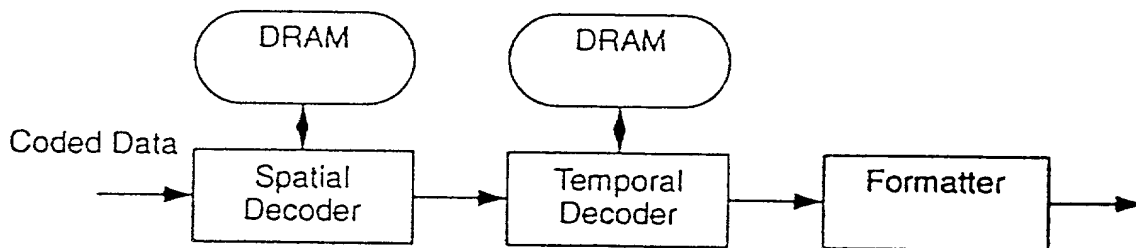


FIG.32

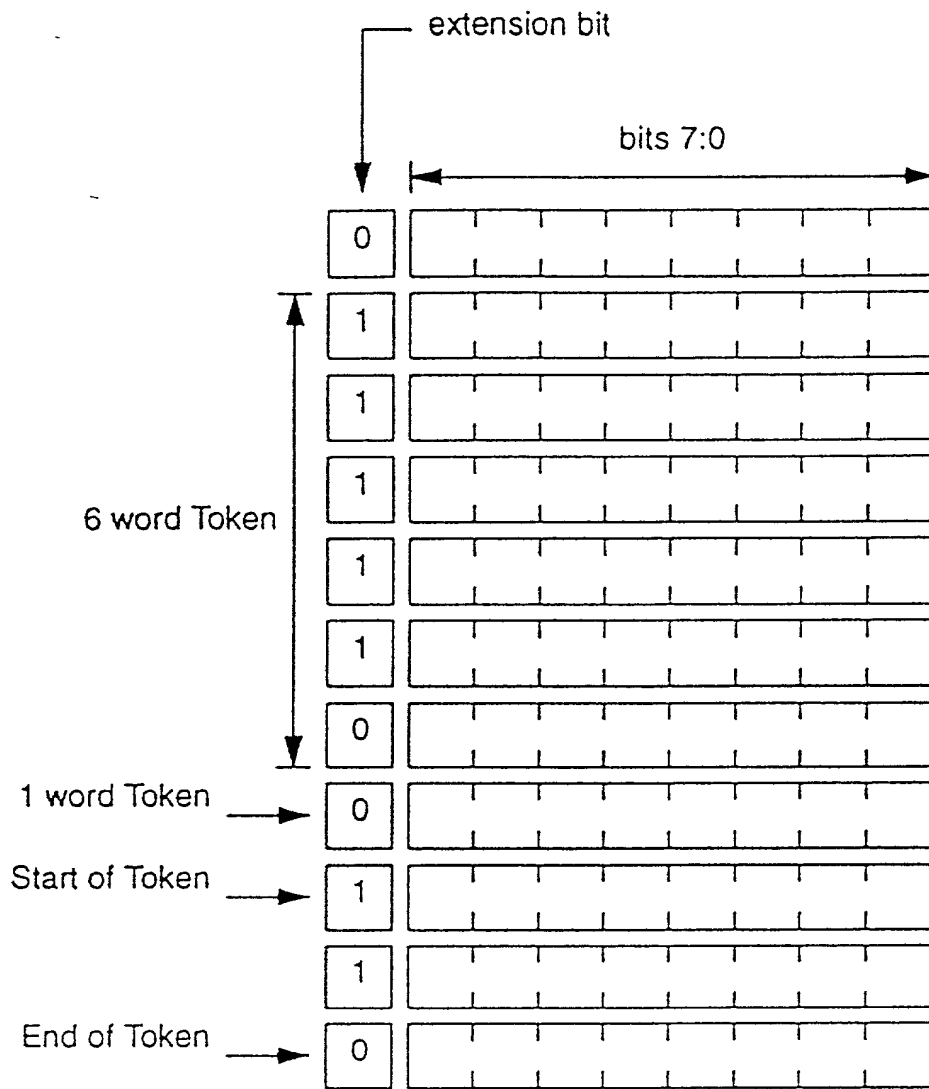


FIG.33

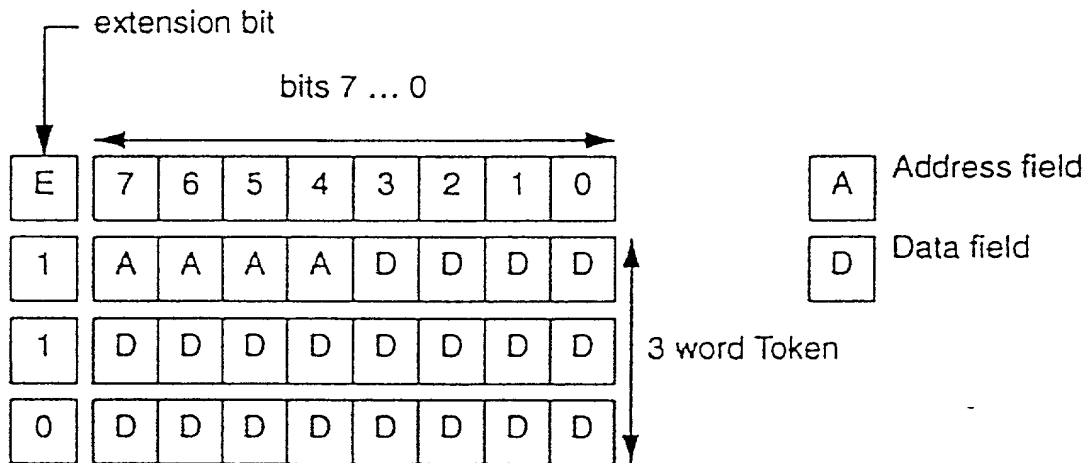


FIG.34

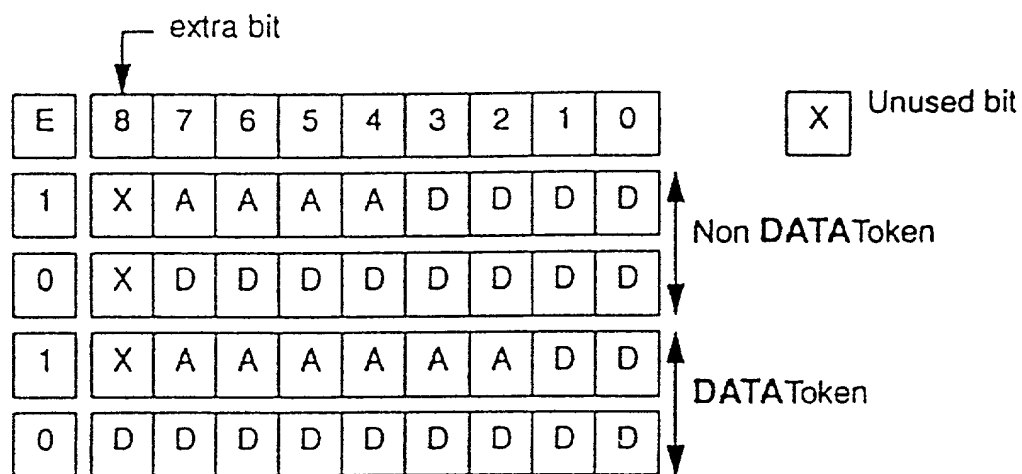
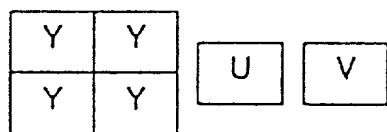


FIG.35



MPEG 4:2:0
macroblock

FIG.36A



JPEG 2:1:1
macroblock

FIG.36B

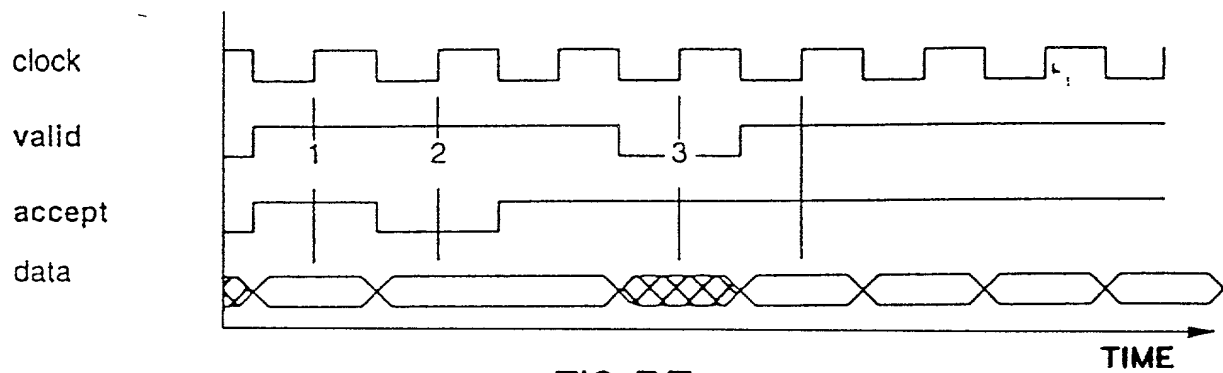


FIG.37

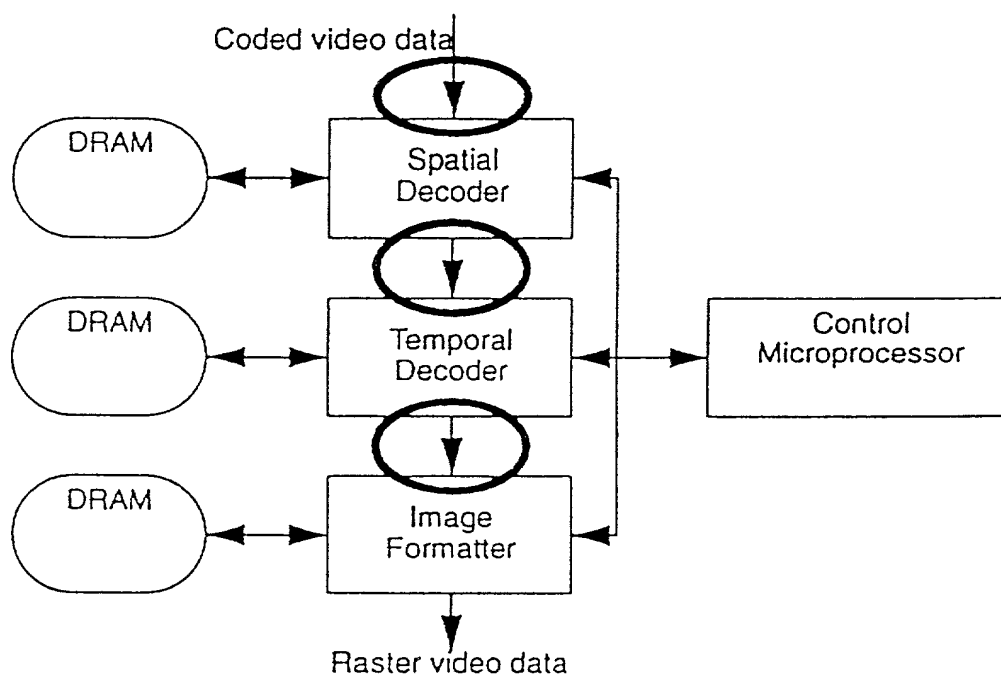


FIG.38

0575333 020204

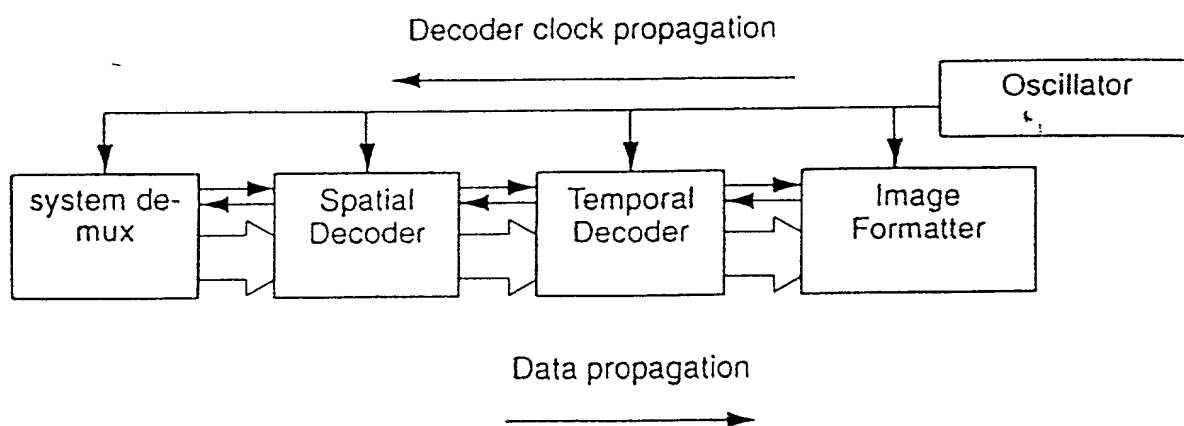
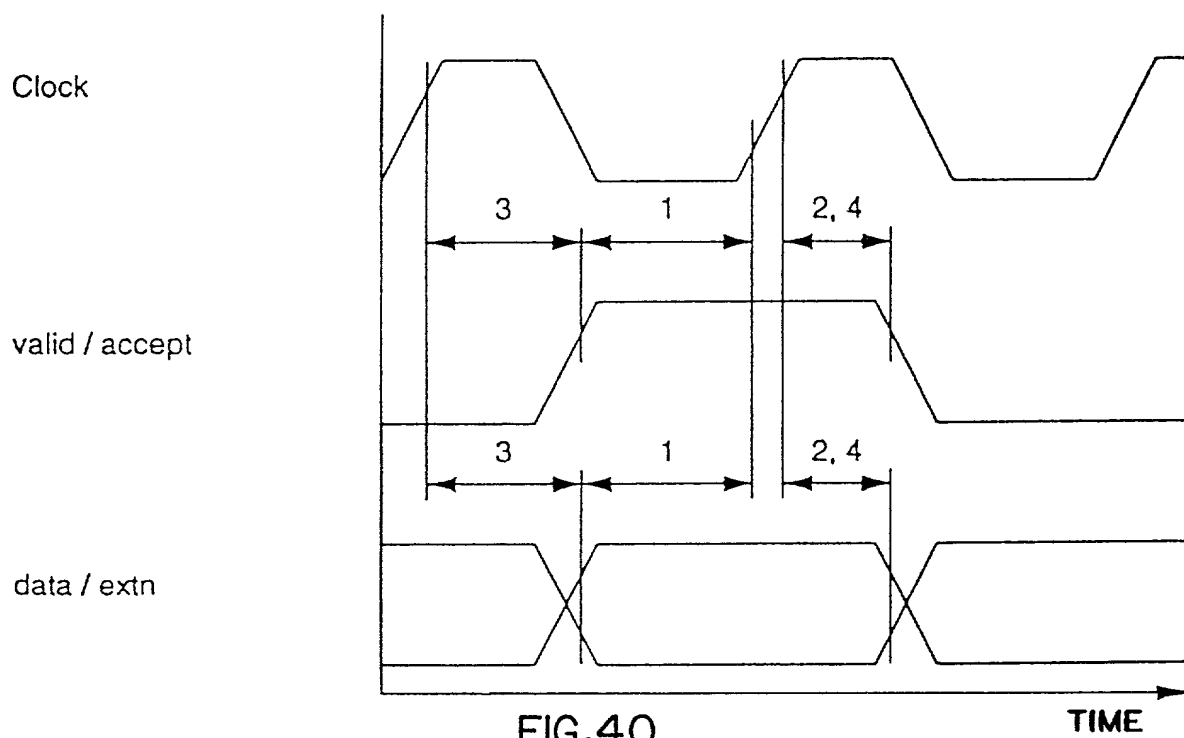


FIG.39



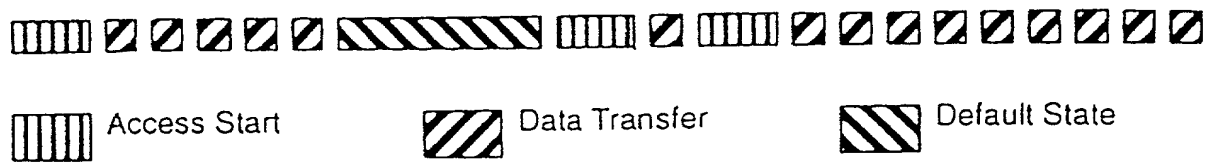


FIG.41

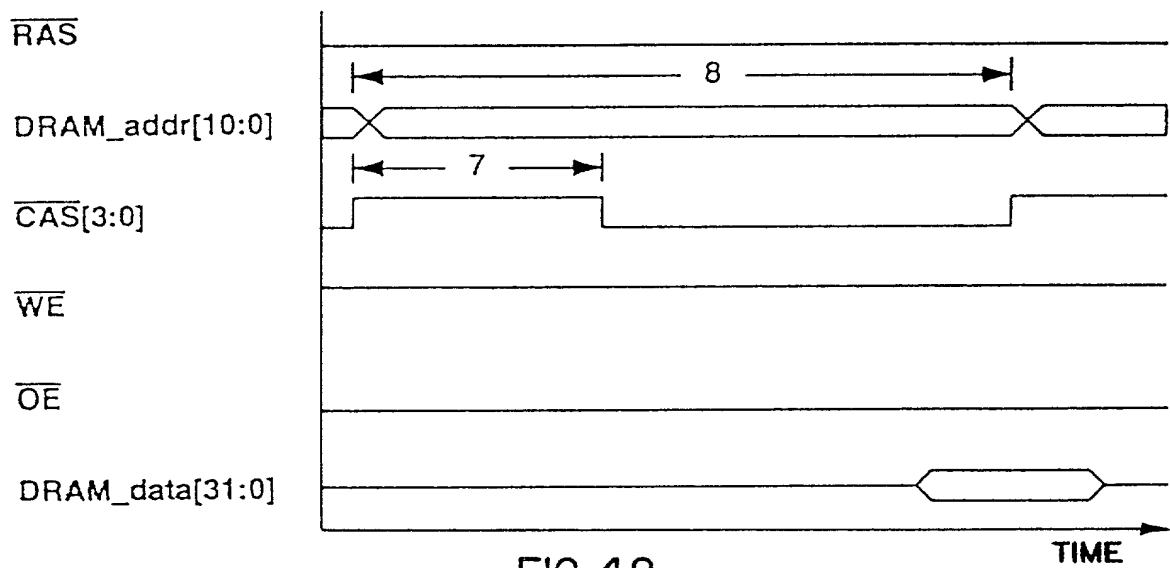


FIG.42

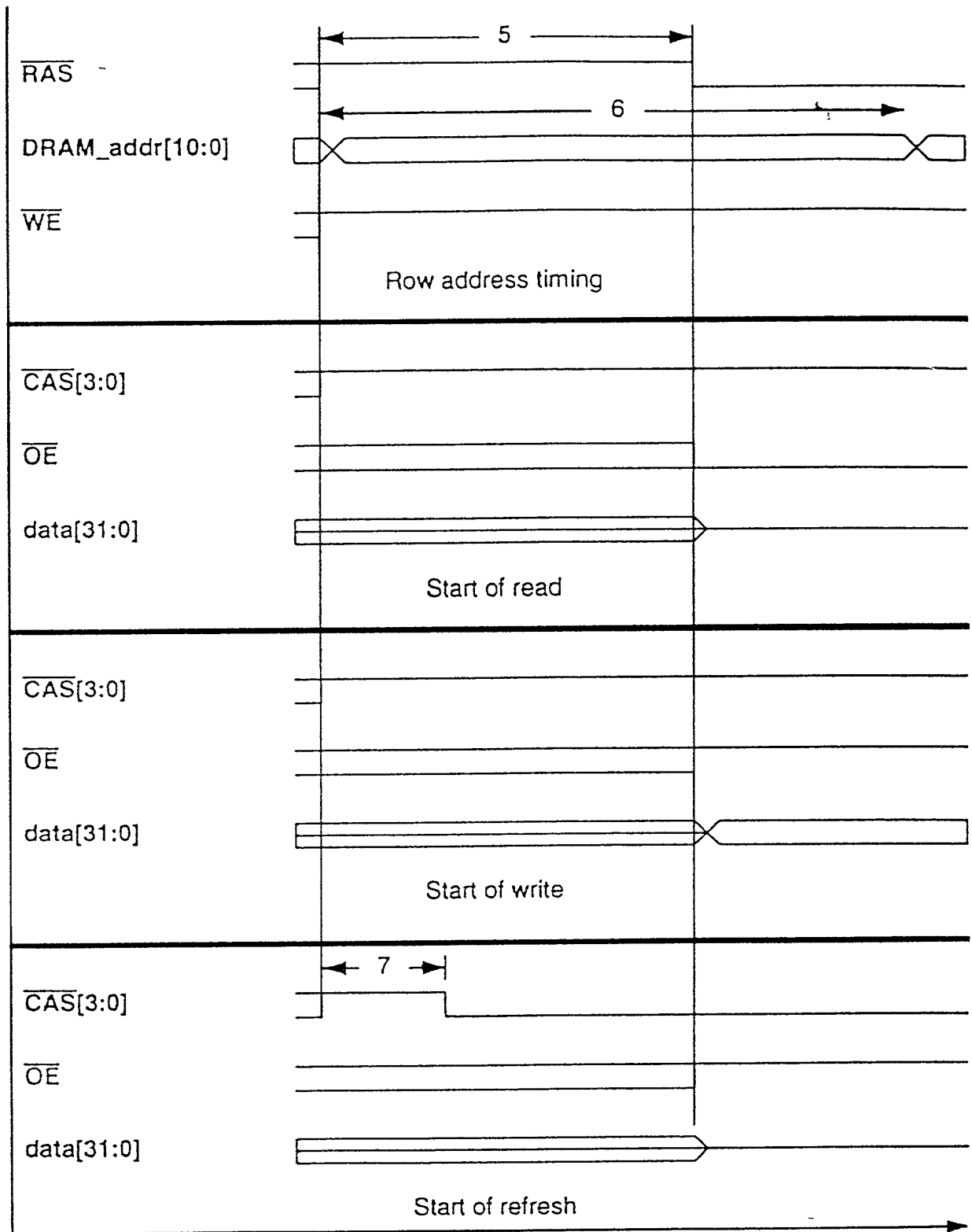


FIG.43

TIME

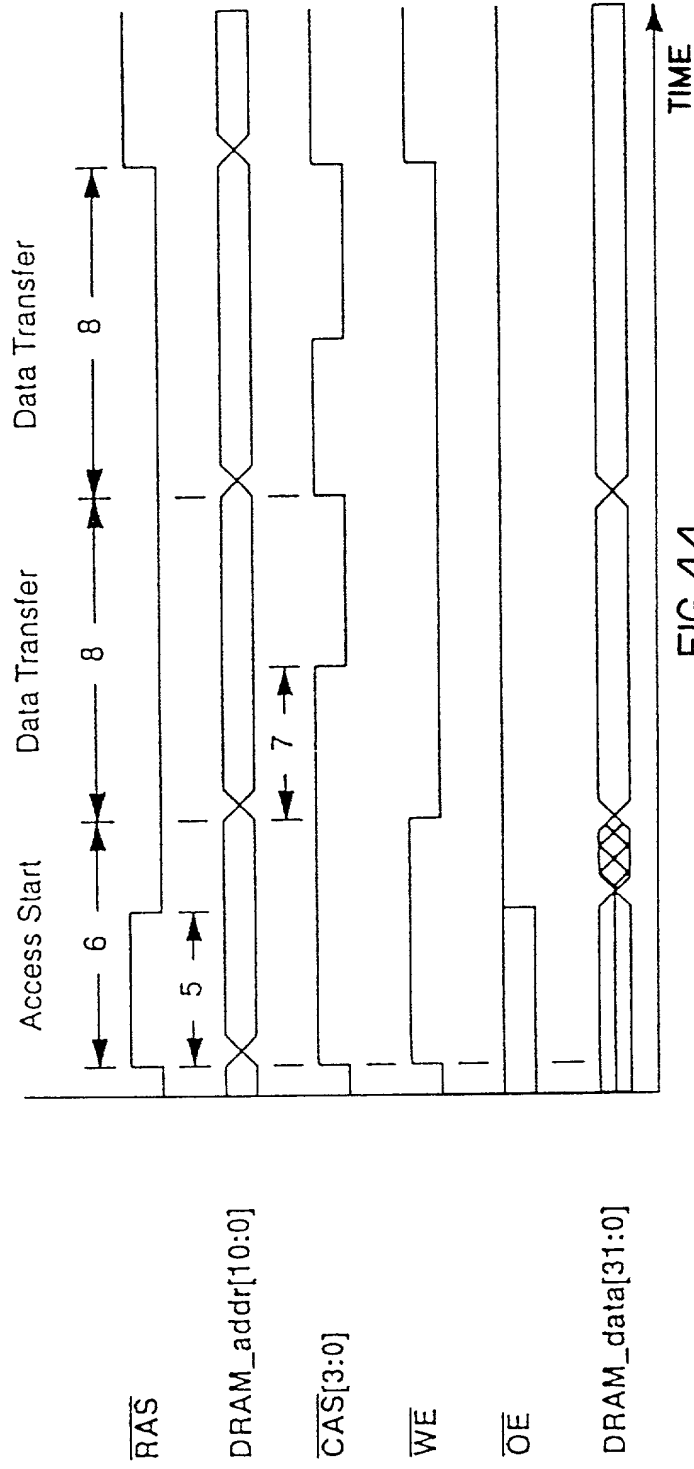


FIG.44

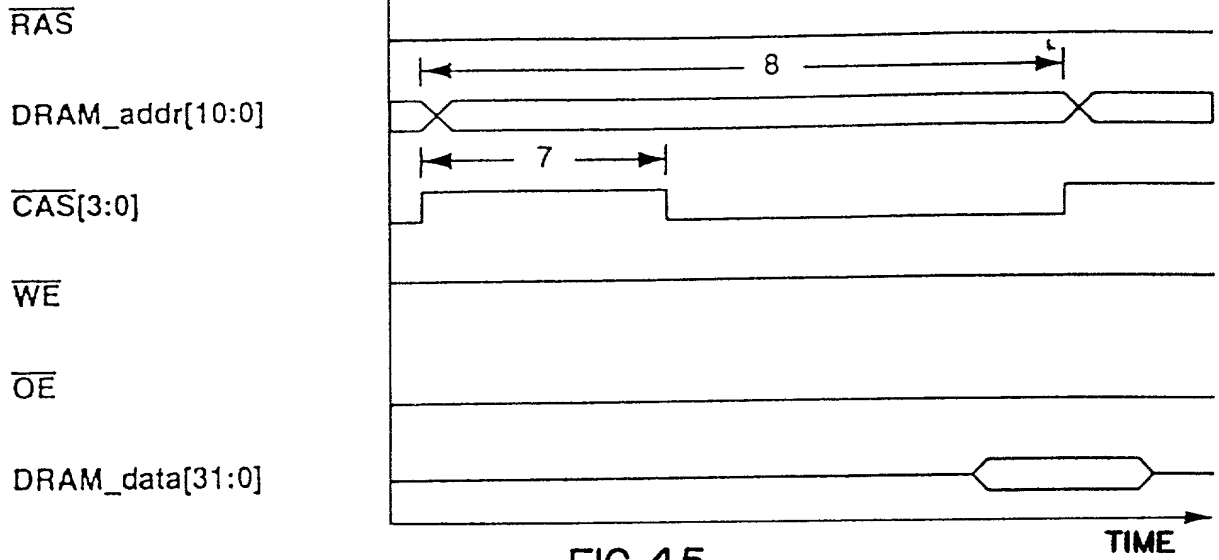


FIG.45

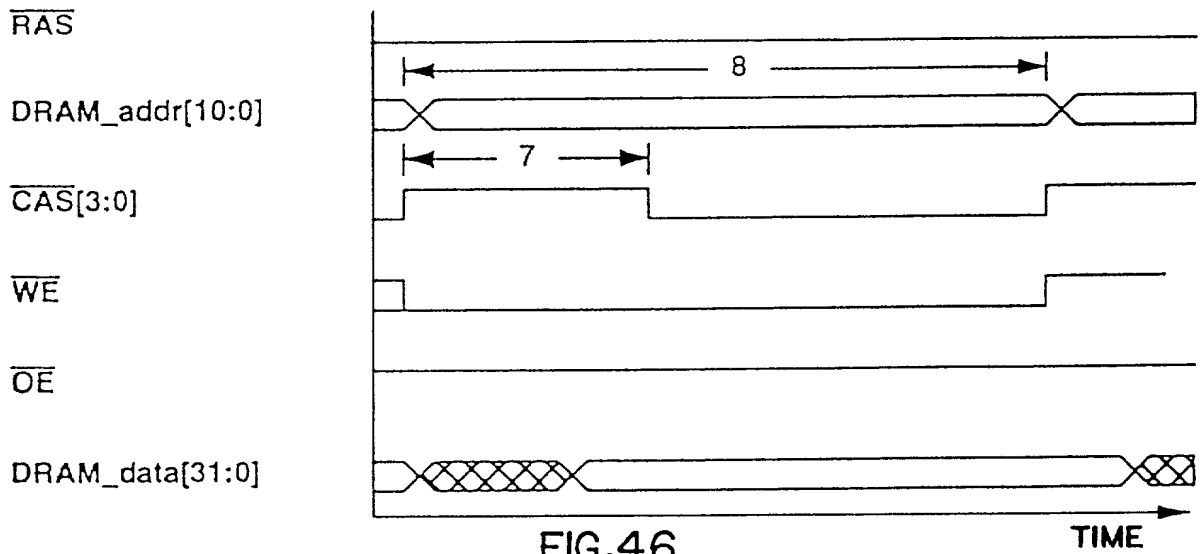


FIG.46

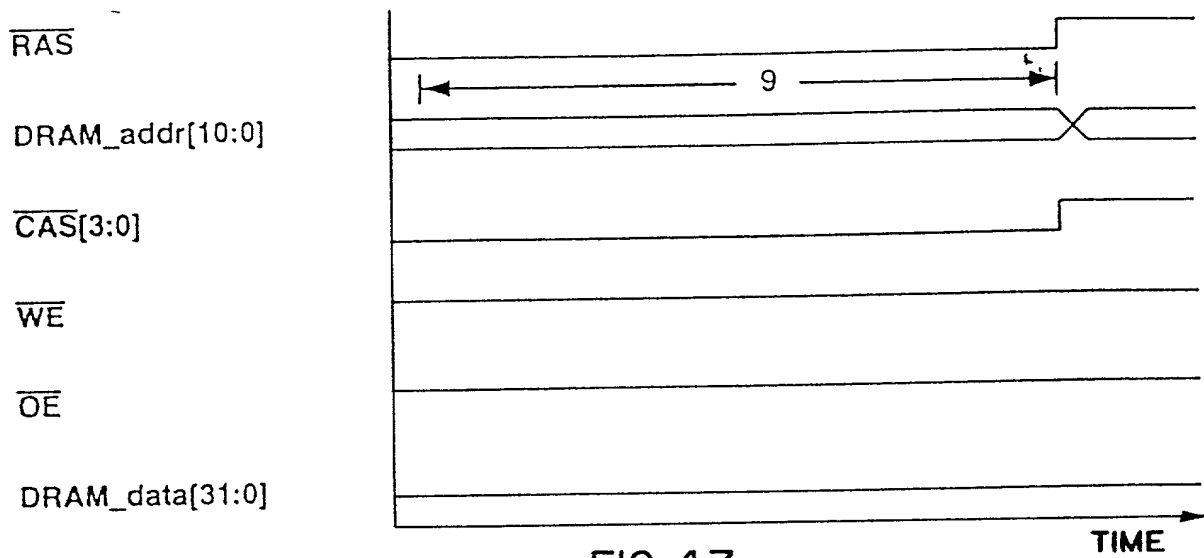


FIG.47

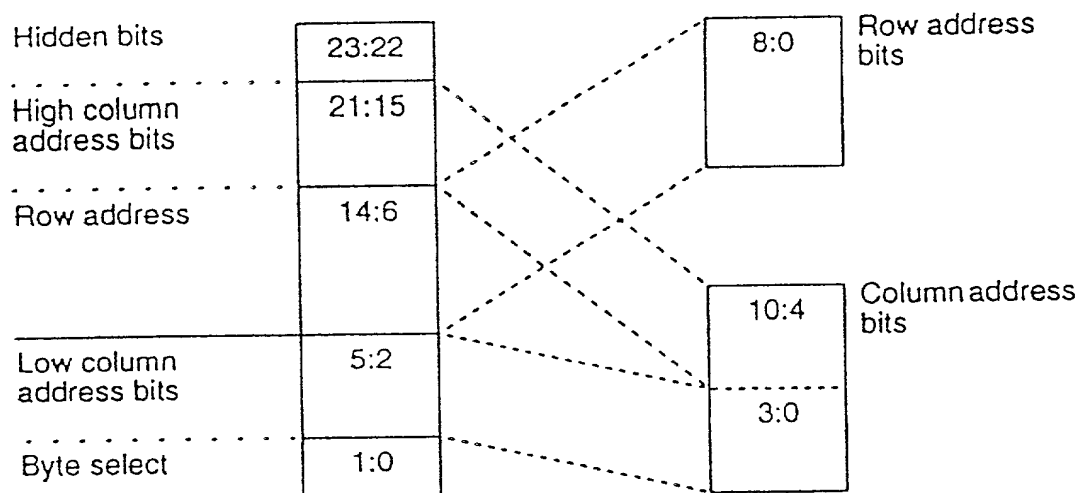


FIG.48

09779389 020804
"09020" 2926760

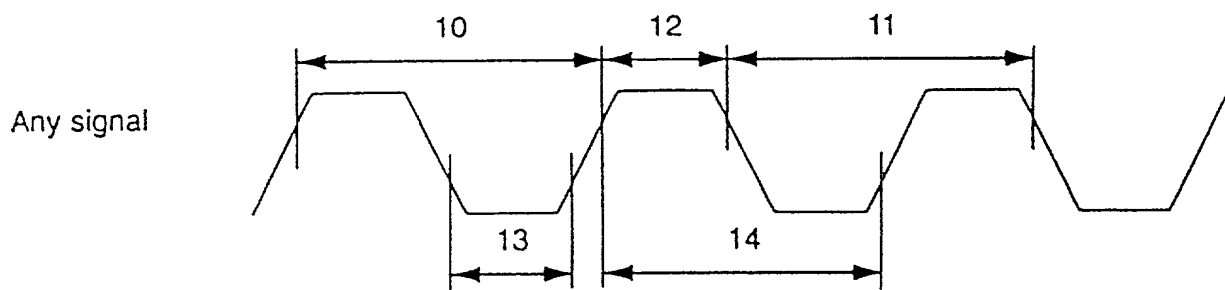


FIG.49

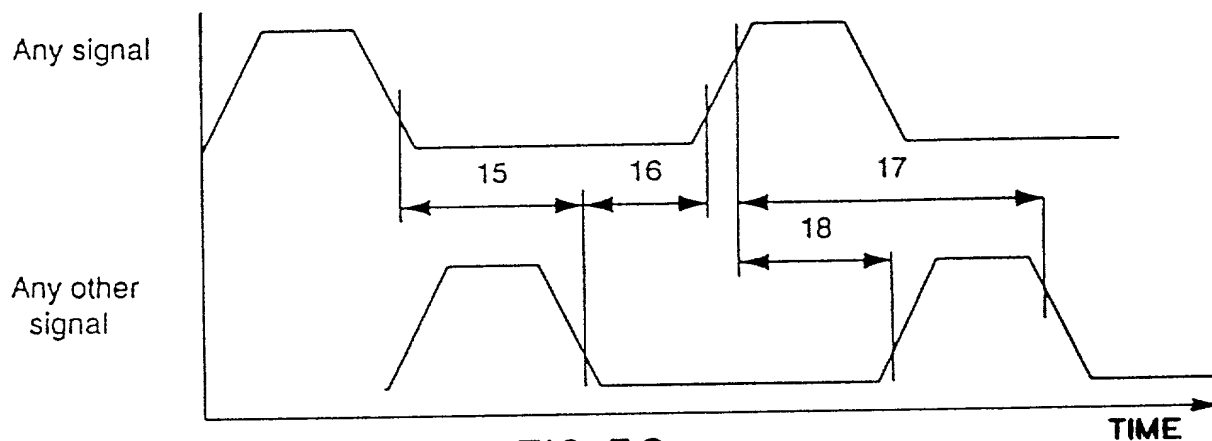
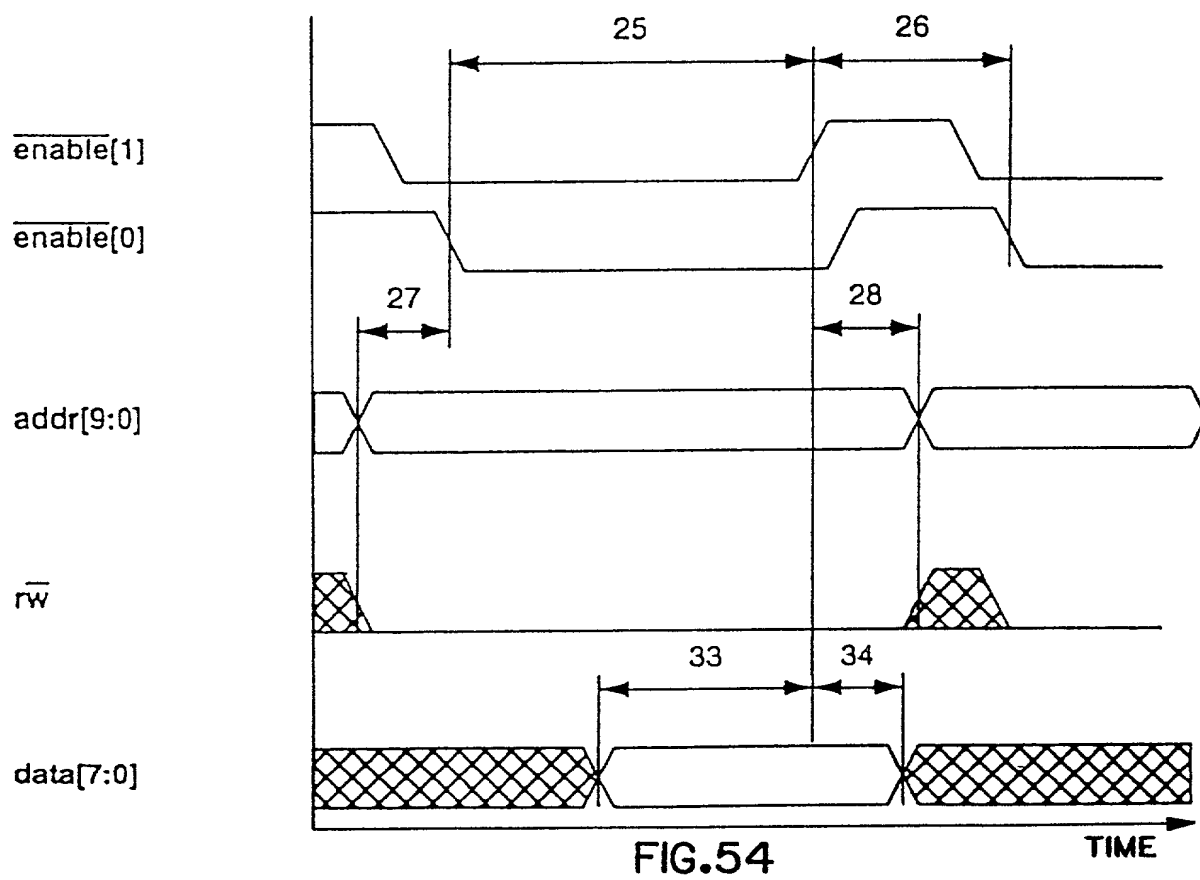
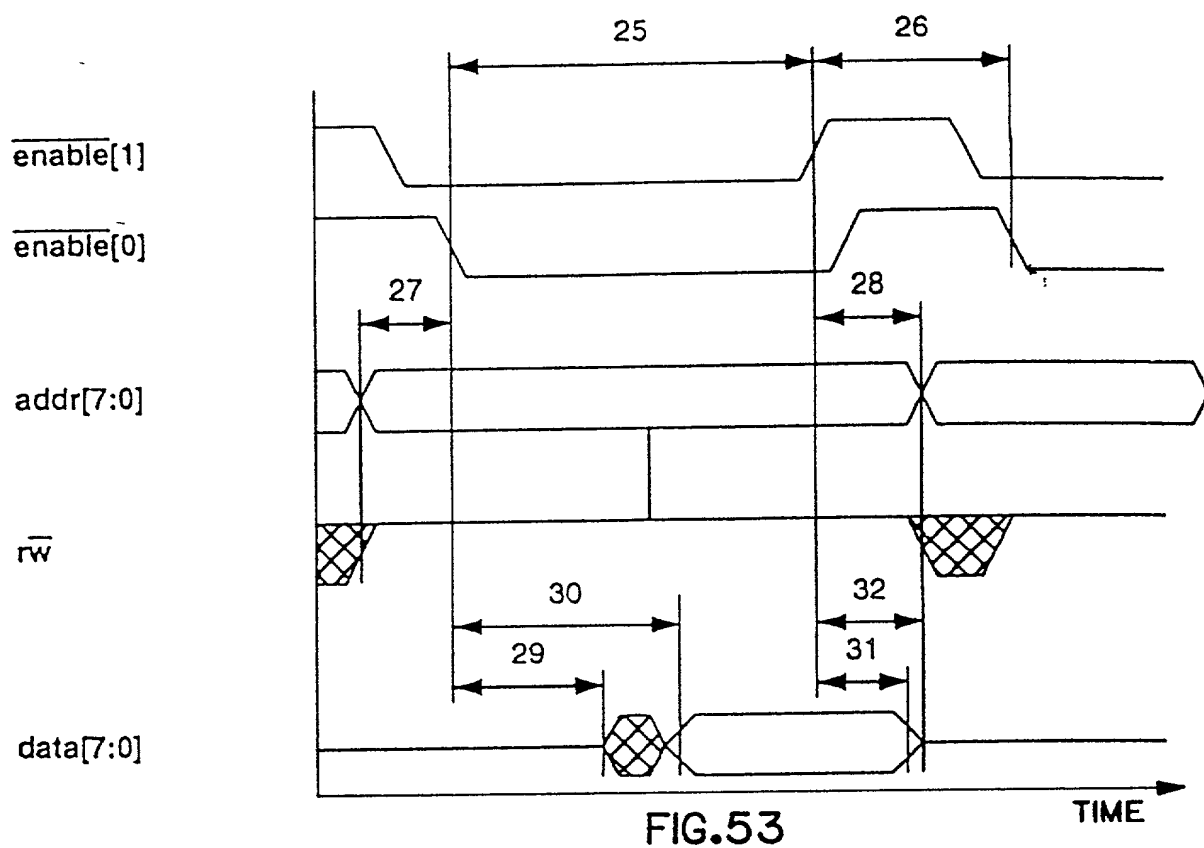


FIG.50

The diagram shows two signals over time: 'Any bus' and 'Any strobe'. The 'Any bus' signal is a high-level signal with two pulses. The 'Any strobe' signal is a periodic signal with a trapezoidal shape. Four time intervals are marked with double-headed arrows: 19 (from the start of the first bus pulse to the start of the first strobe pulse), 20 (from the end of the first strobe pulse to the start of the second bus pulse), 21 (from the end of the second bus pulse to the start of the second strobe pulse), and 22 (from the end of the first strobe pulse to the end of the first bus pulse).

The diagram shows two signals over time. The top signal, labeled $\overline{\text{CAS}}[3:0]$, is a periodic trapezoidal waveform. The bottom signal, labeled $\text{DRAM_data}[31:0]$, is a periodic signal that transitions between high and low states. Two vertical lines mark the start and end of a data burst. The time interval between these two lines is divided into two segments: a first segment labeled '23' and a second segment labeled '24'. The horizontal axis is labeled 'TIME' with an arrow pointing to the right.

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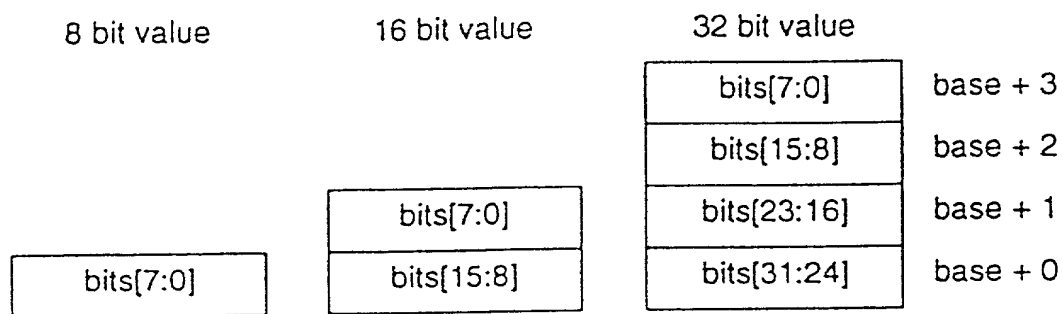


FIG.55

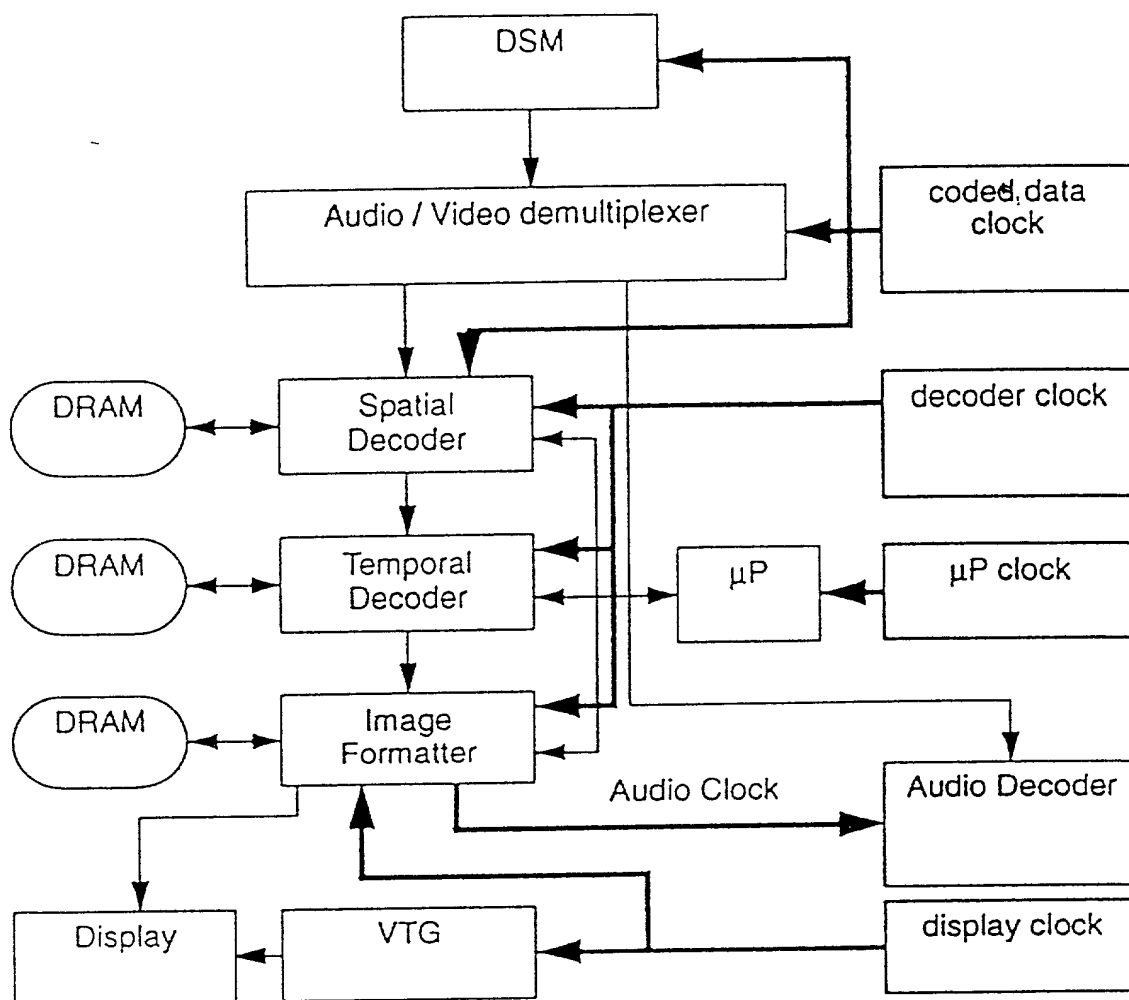


FIG.56

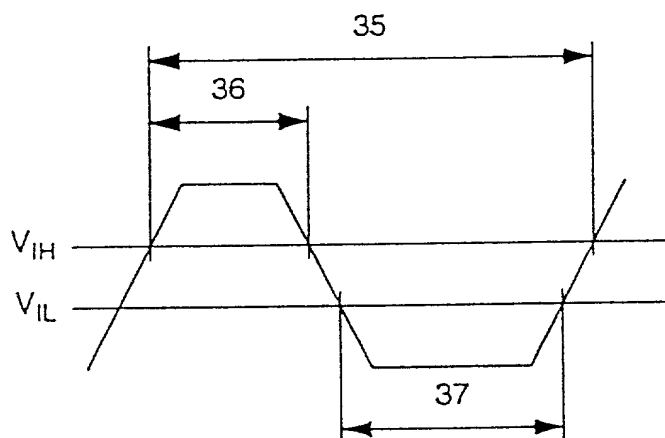


FIG.57

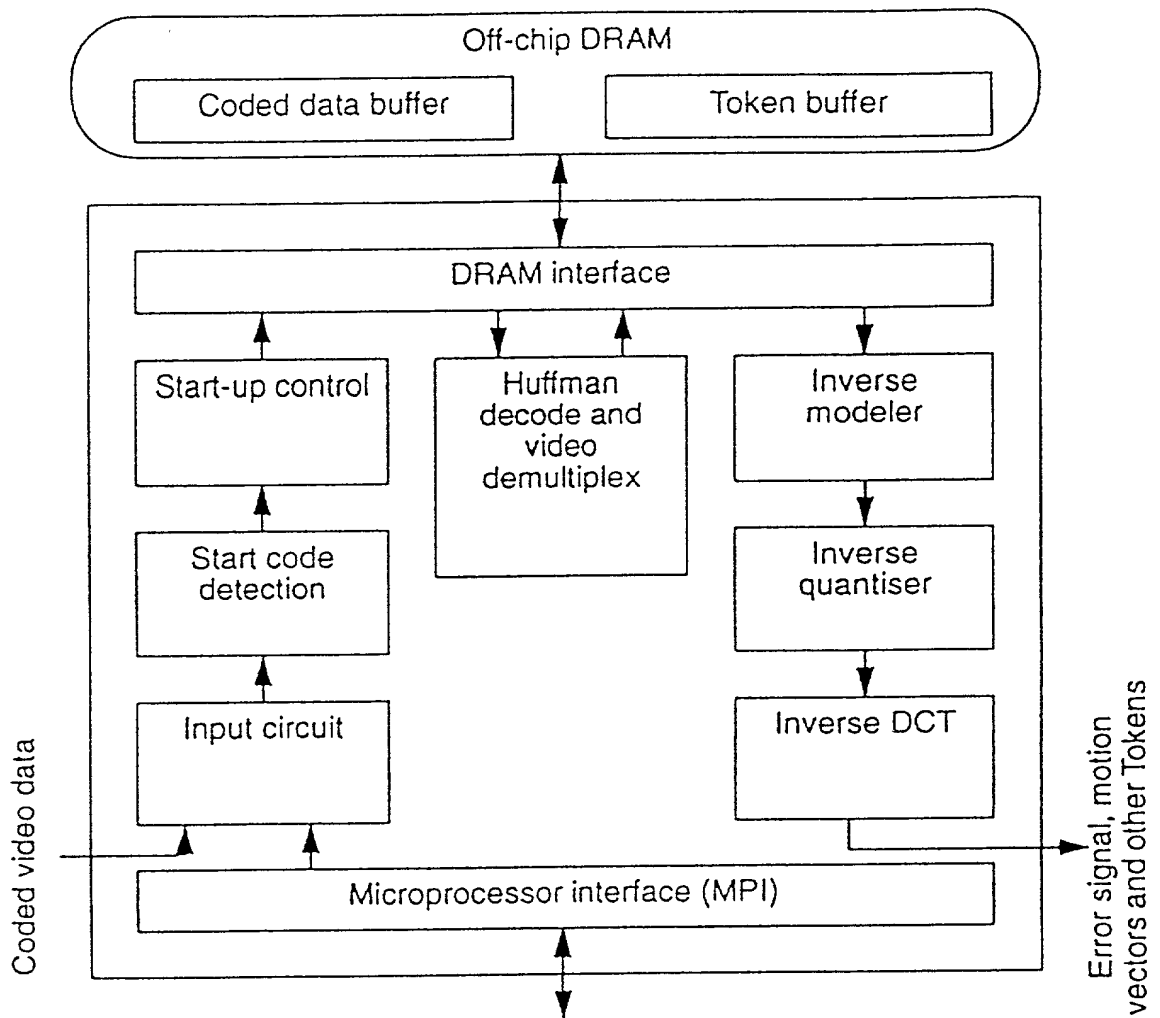


FIG.58

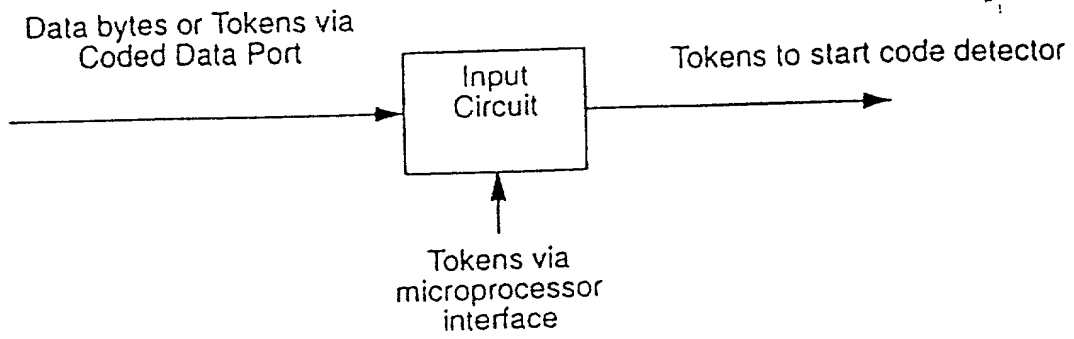


FIG.59

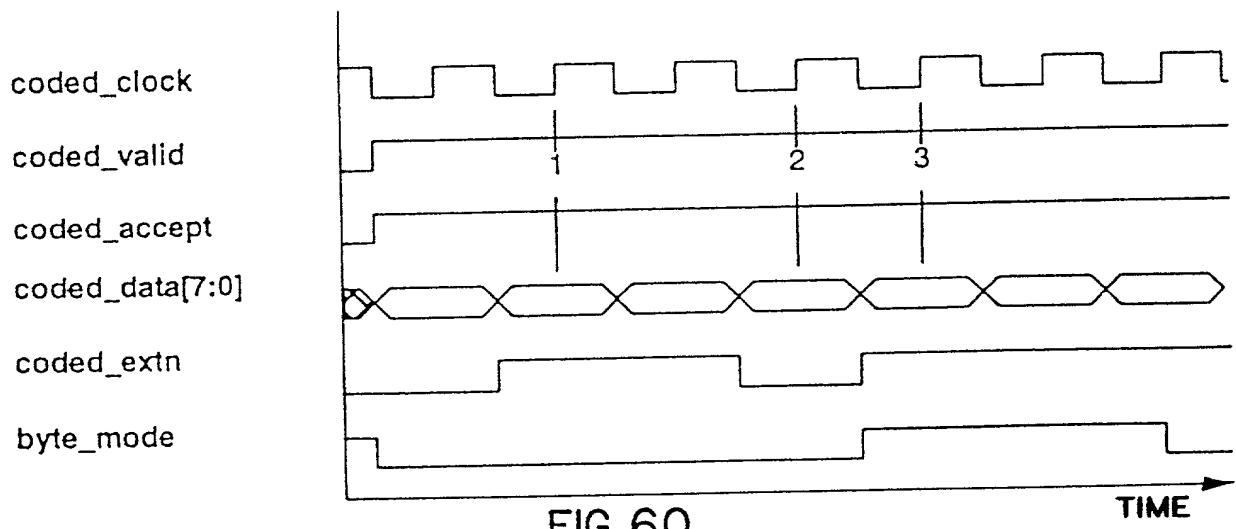


FIG.60

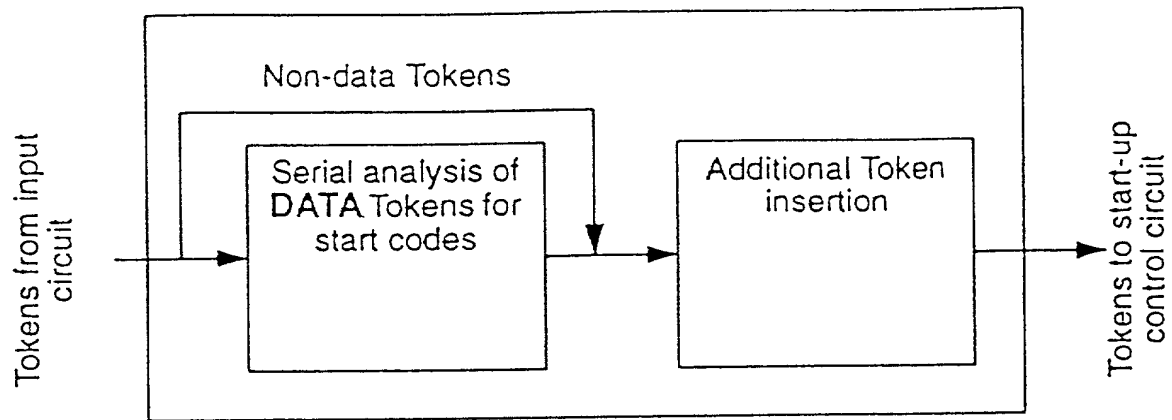


FIG. 61

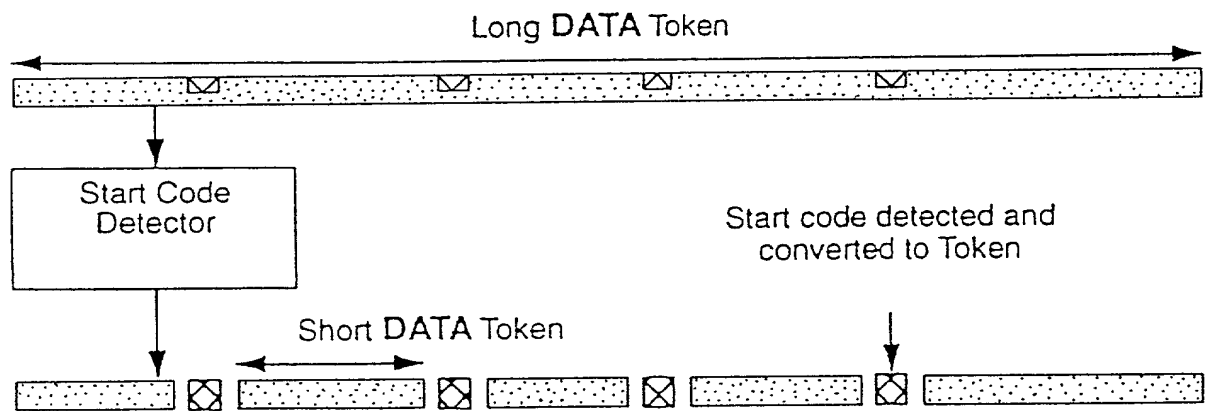


FIG. 62

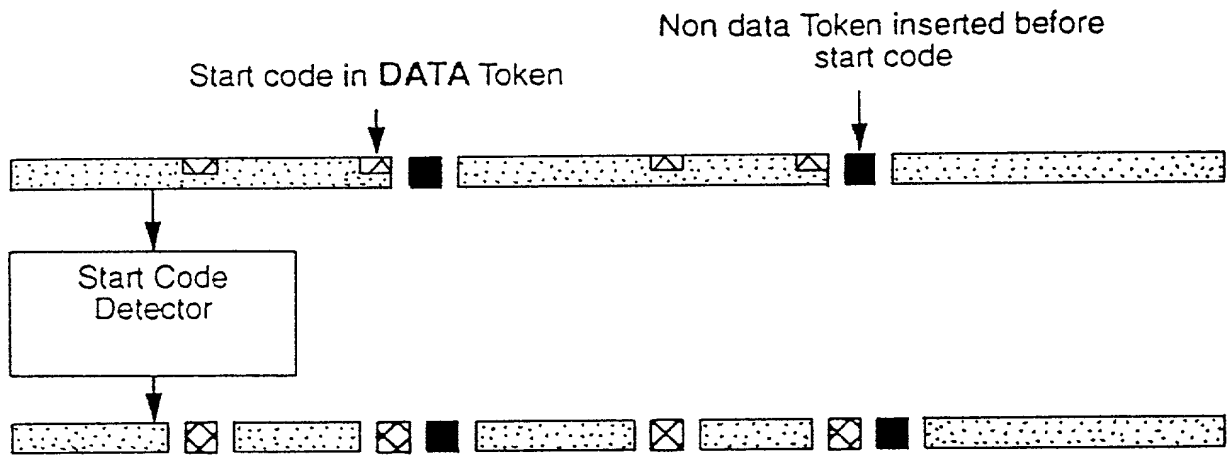


FIG.63

This looks like an MPEG picture start

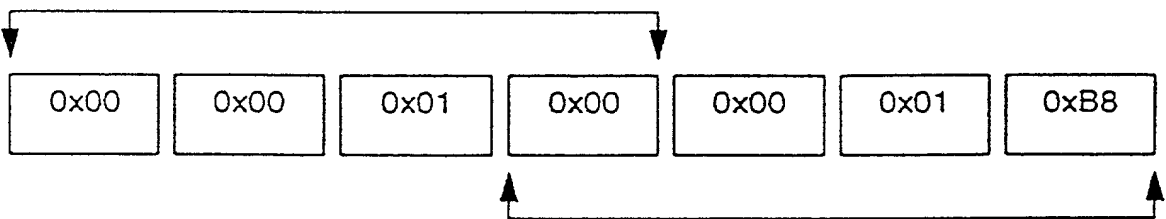


FIG.64

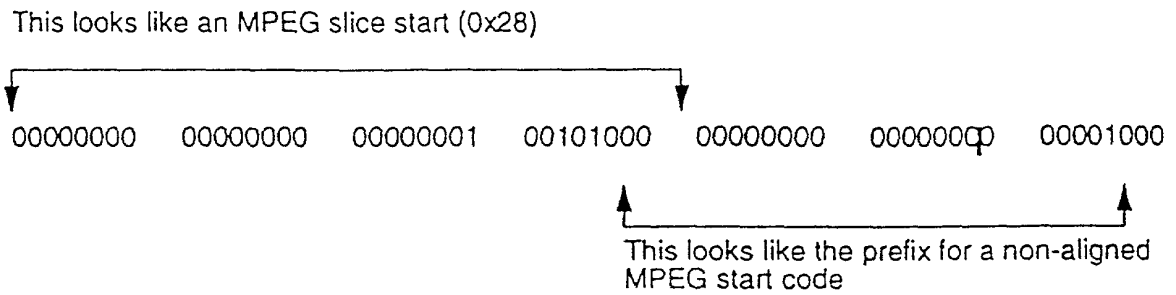


FIG.65

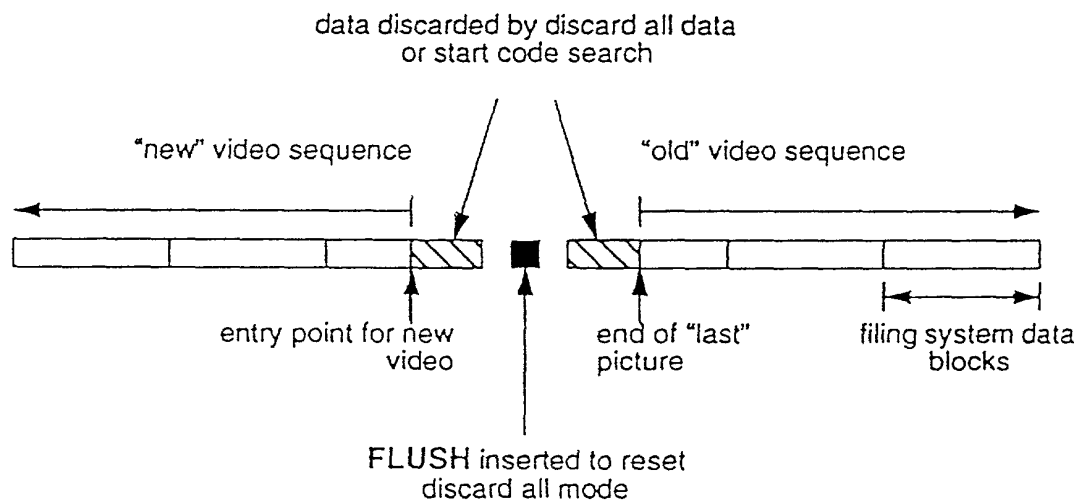


FIG.66

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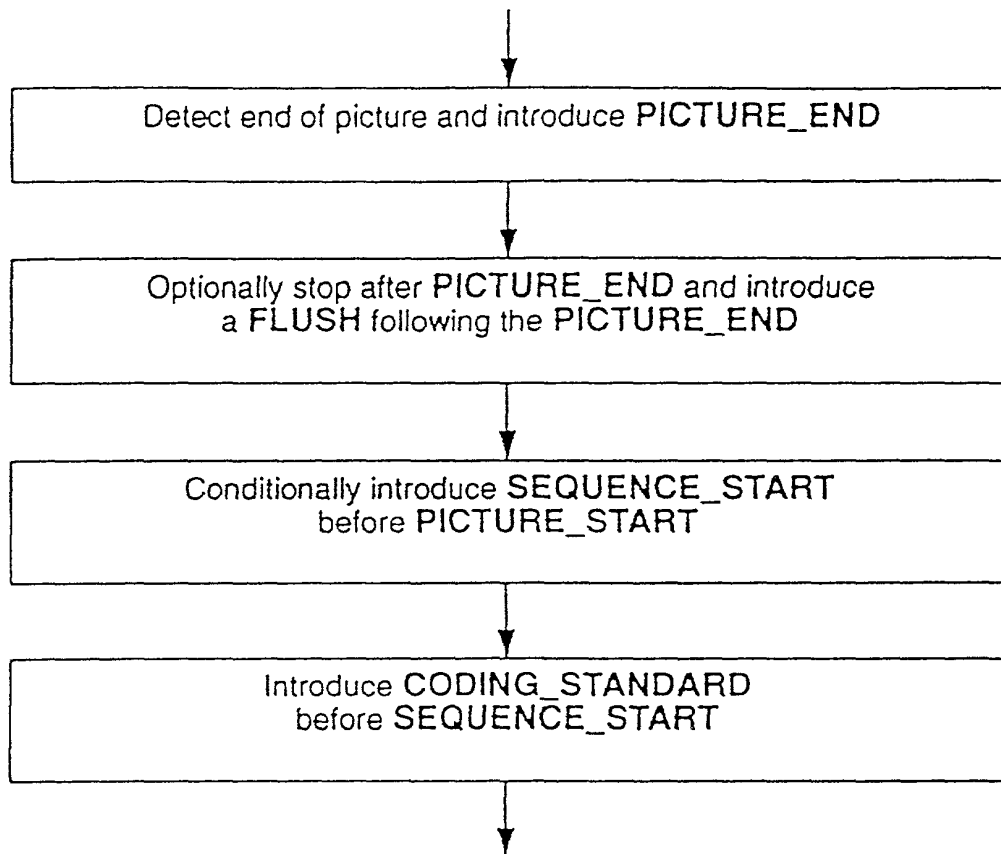


FIG.67

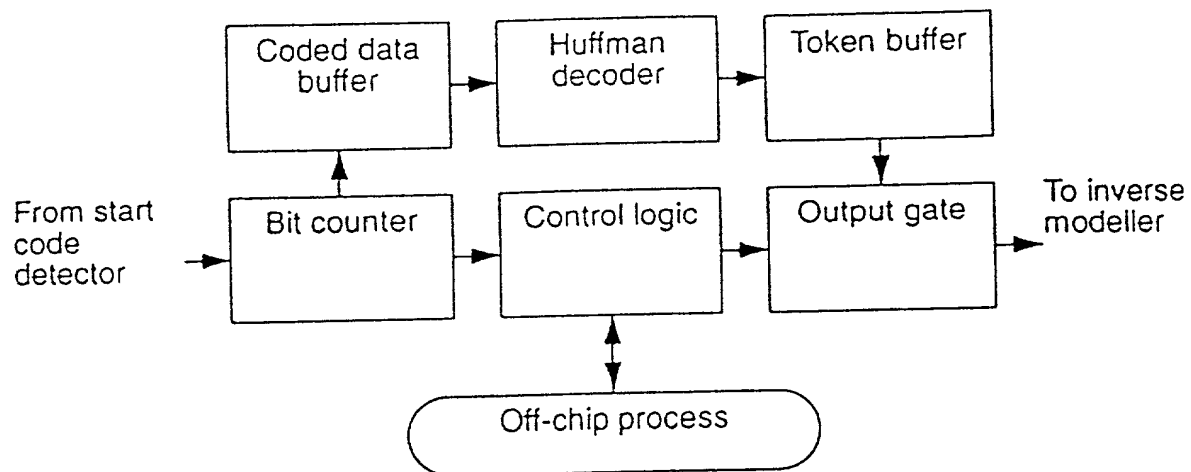


FIG.68

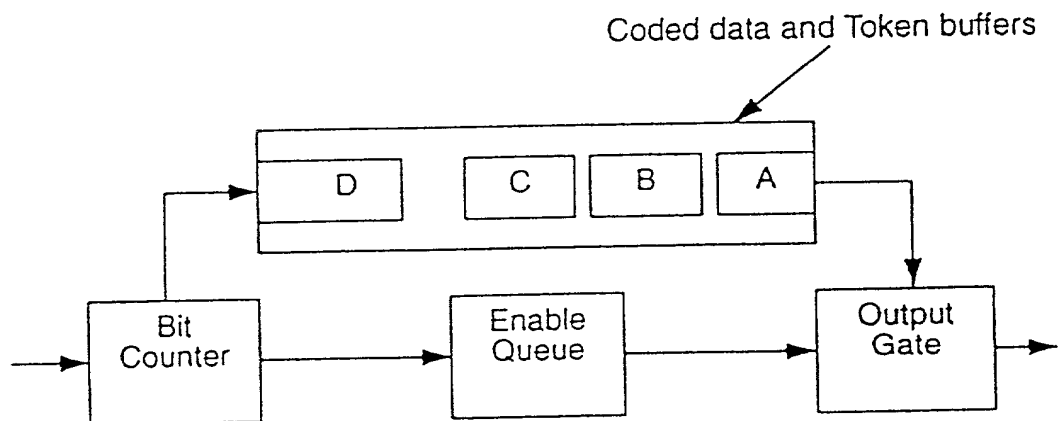


FIG.69

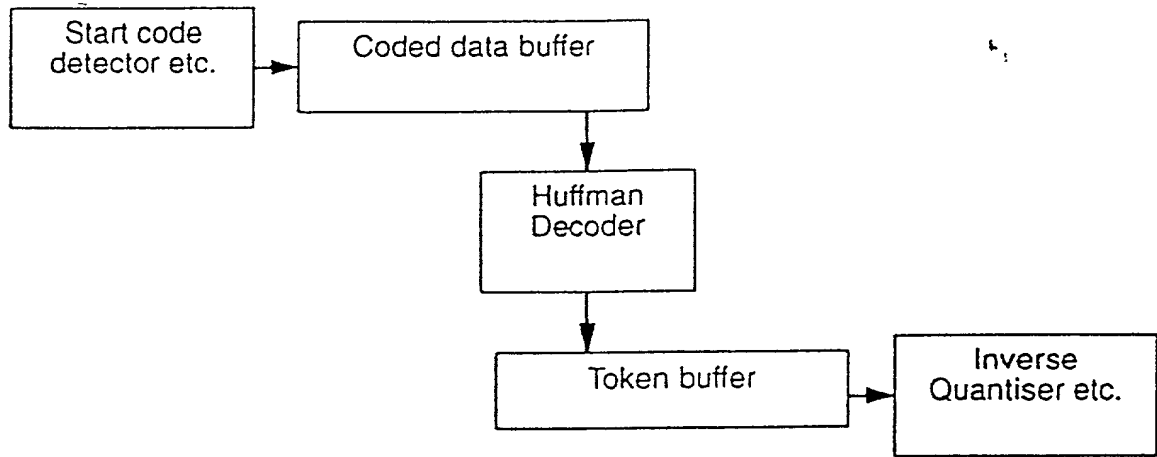


FIG.70

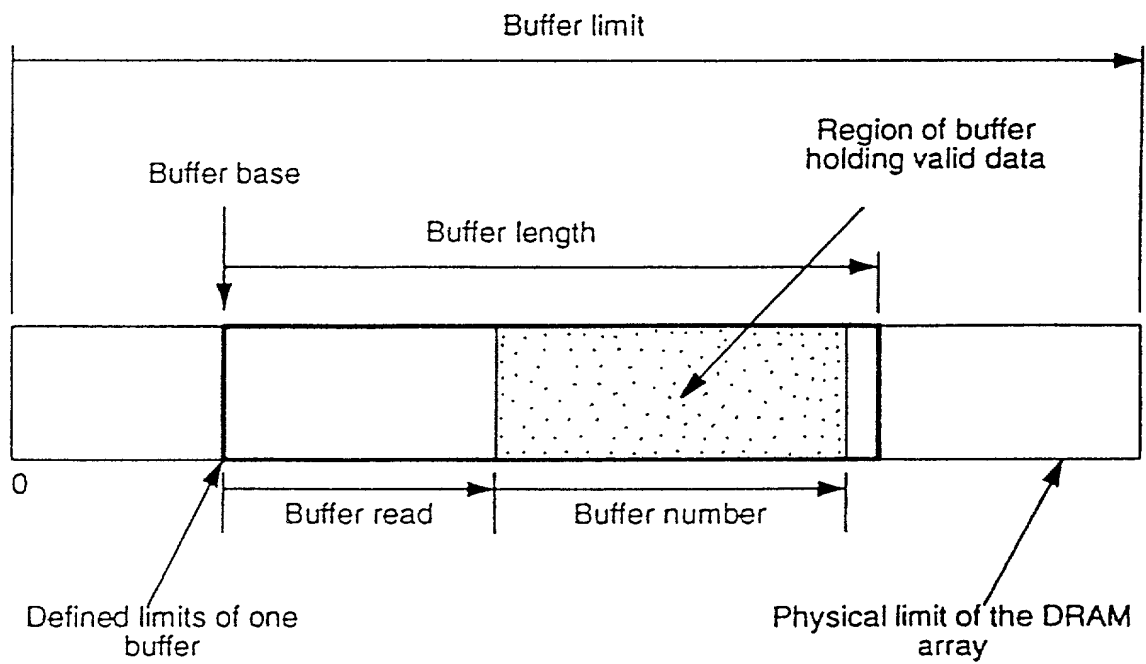


FIG.71

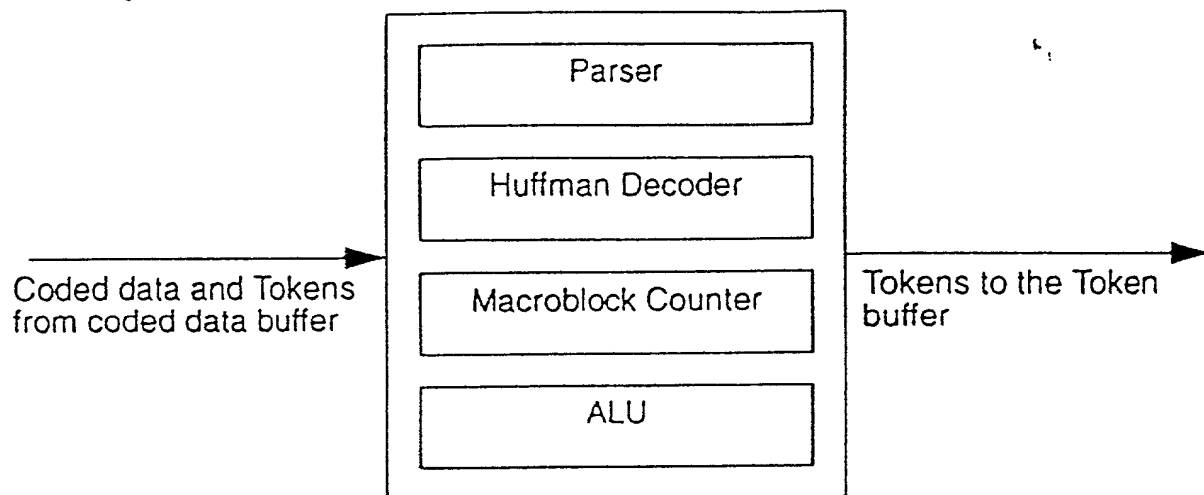


FIG.72

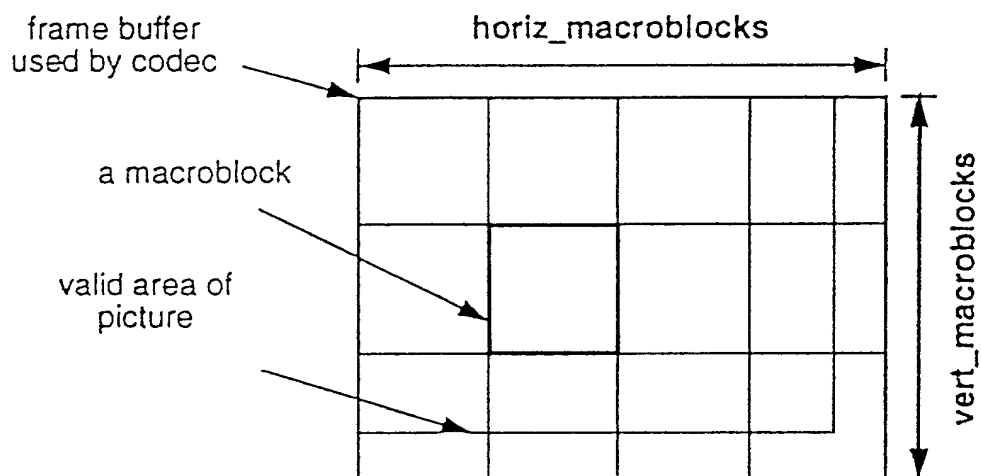
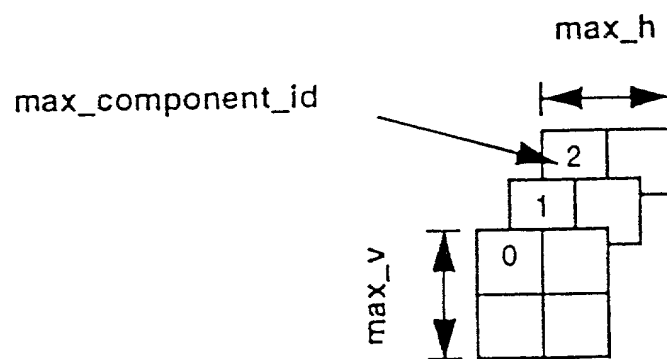
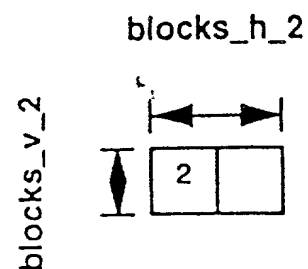
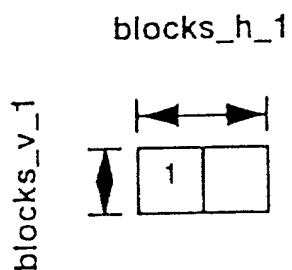
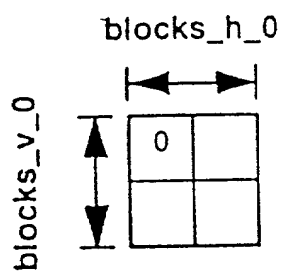


FIG.73



$$\left\{ \begin{array}{l} \text{horiz_macroblocks} = \frac{\text{horiz_pels} + 15}{16} \\ \text{vert_macroblocks} = \frac{\text{vert_pels} + 15}{16} \end{array} \right.$$

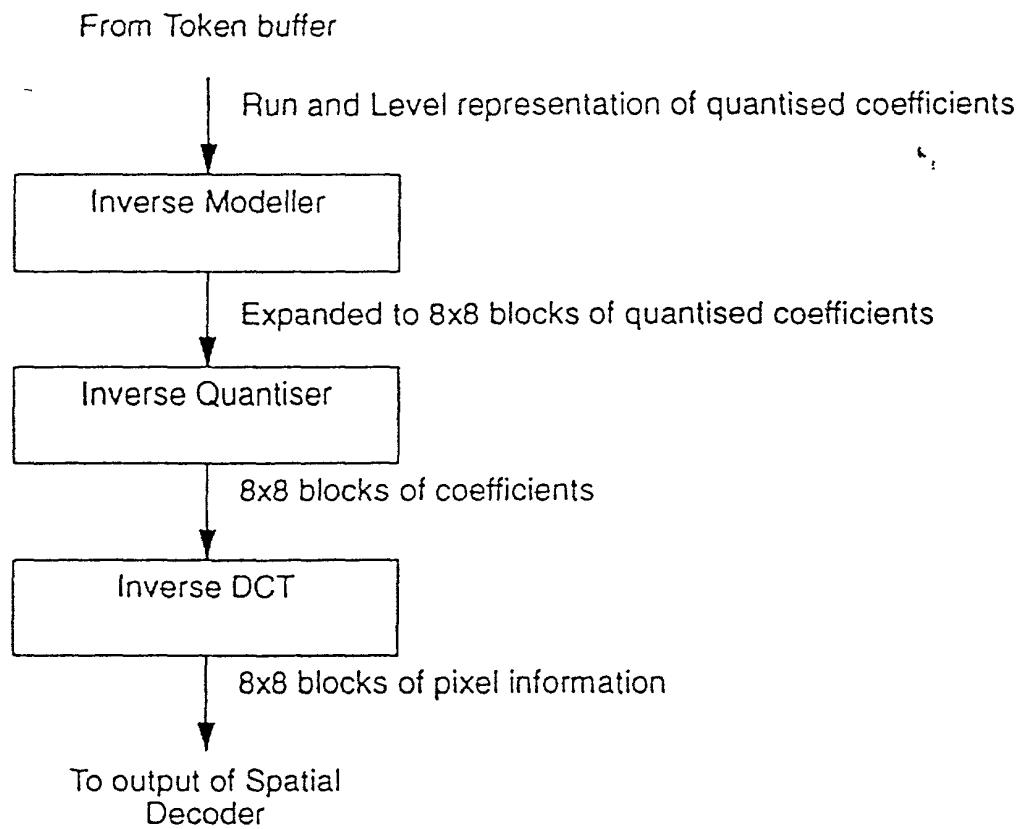


FIG.76

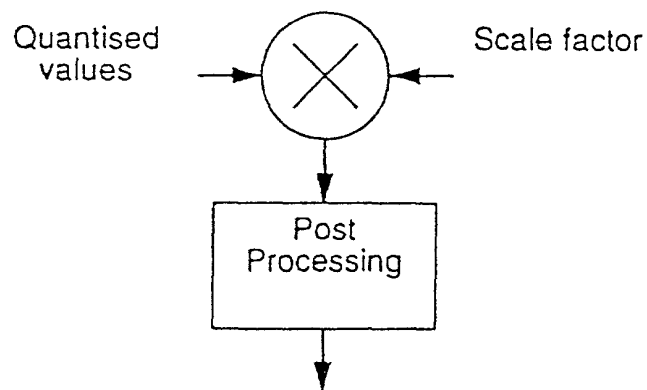


FIG.77

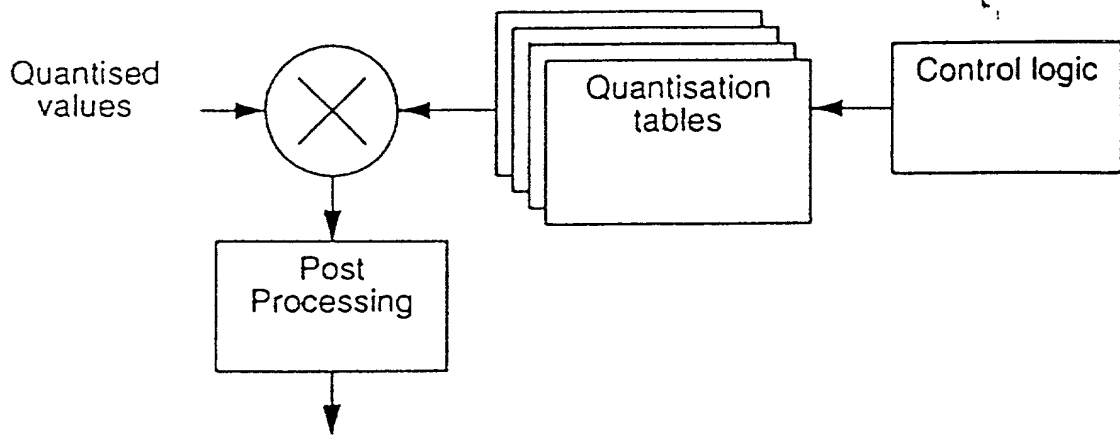


FIG.78

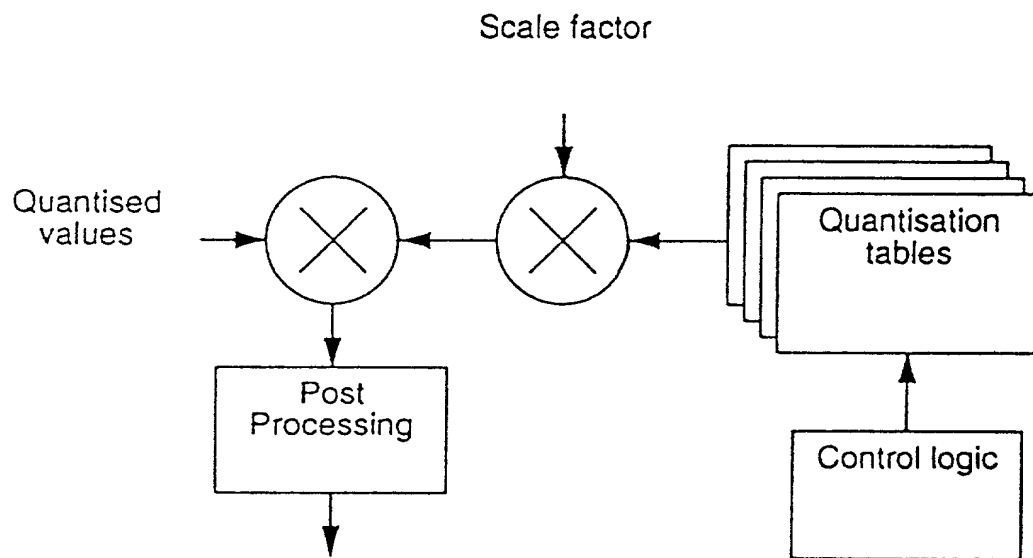


FIG.79

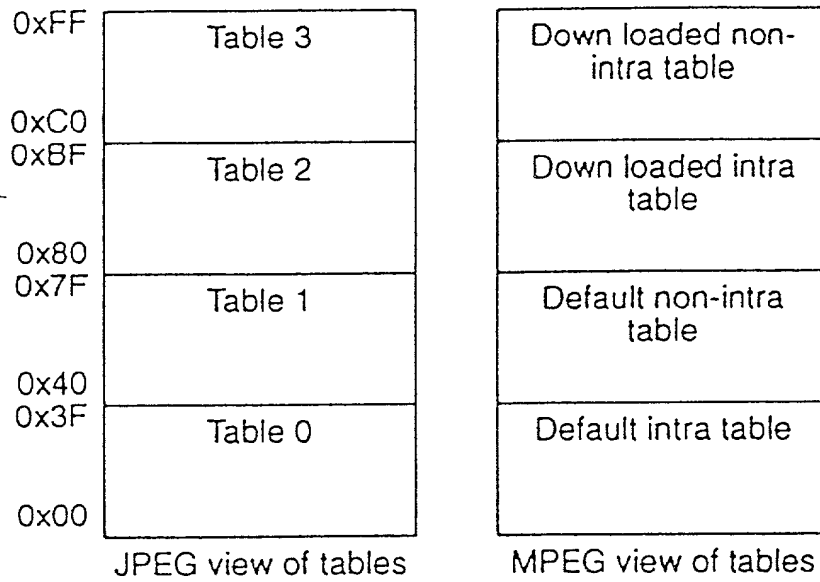


FIG.80

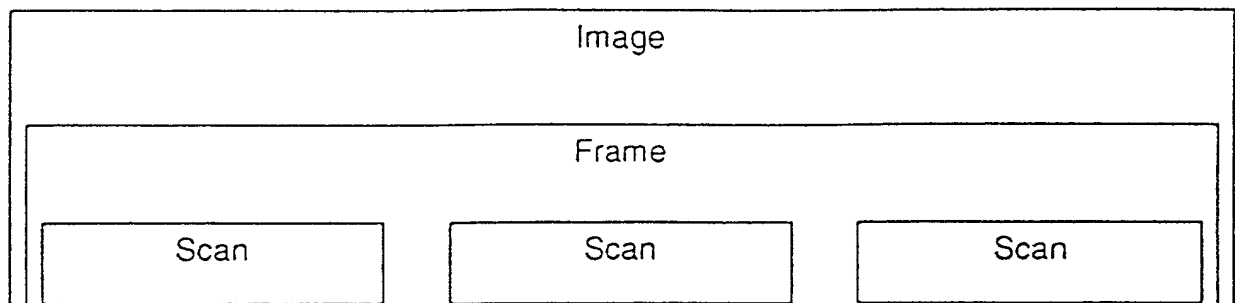


FIG.81

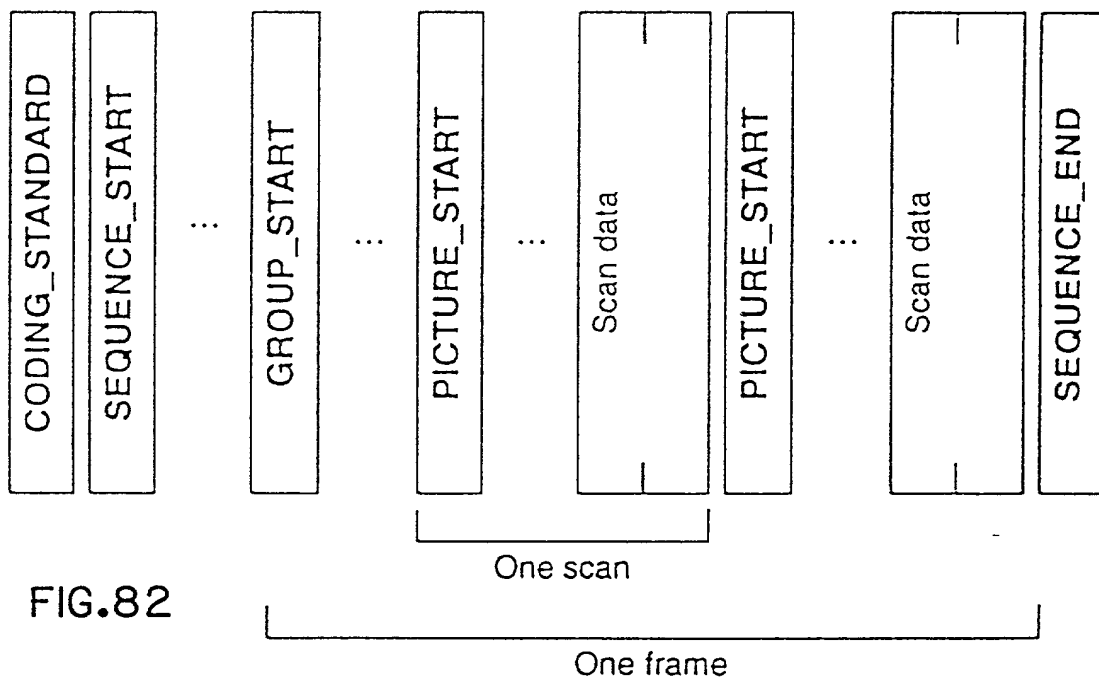


FIG.82

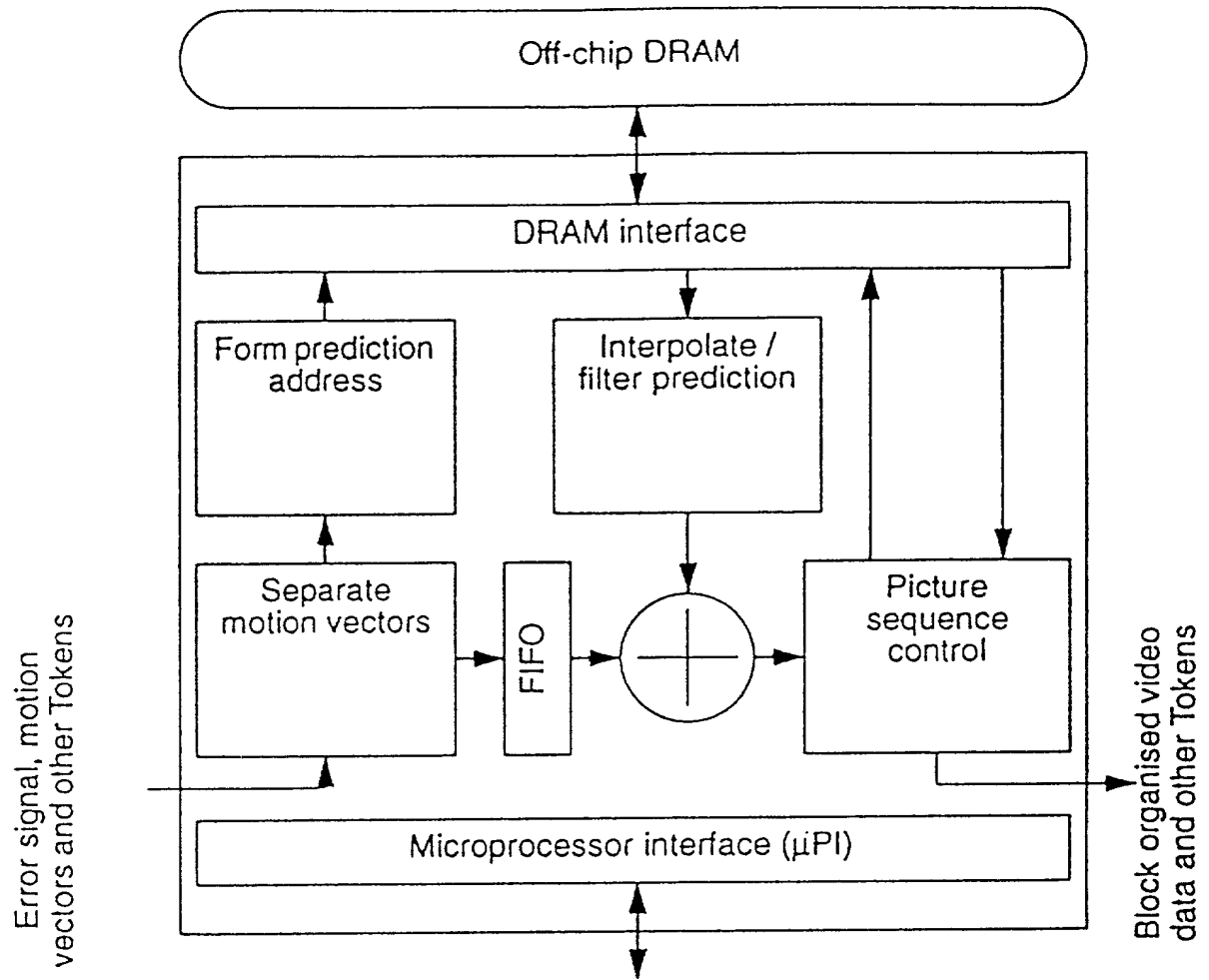


FIG.83

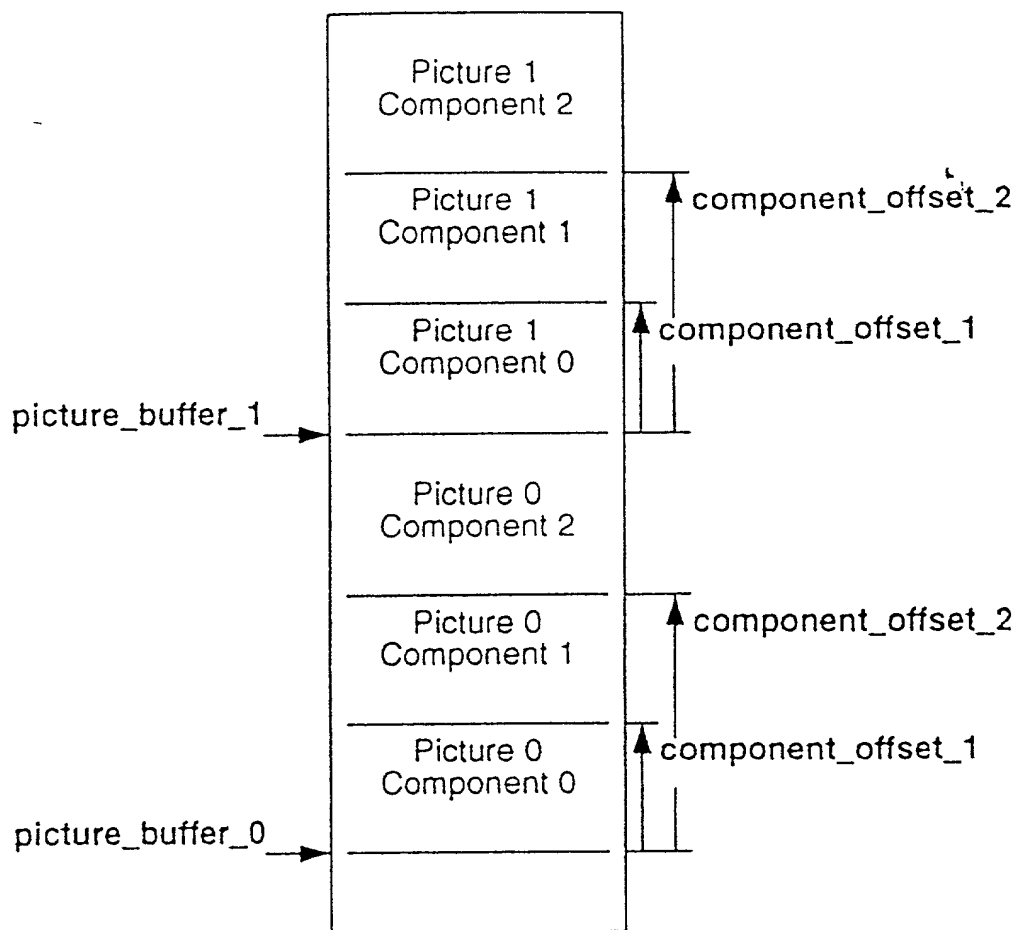


FIG.84

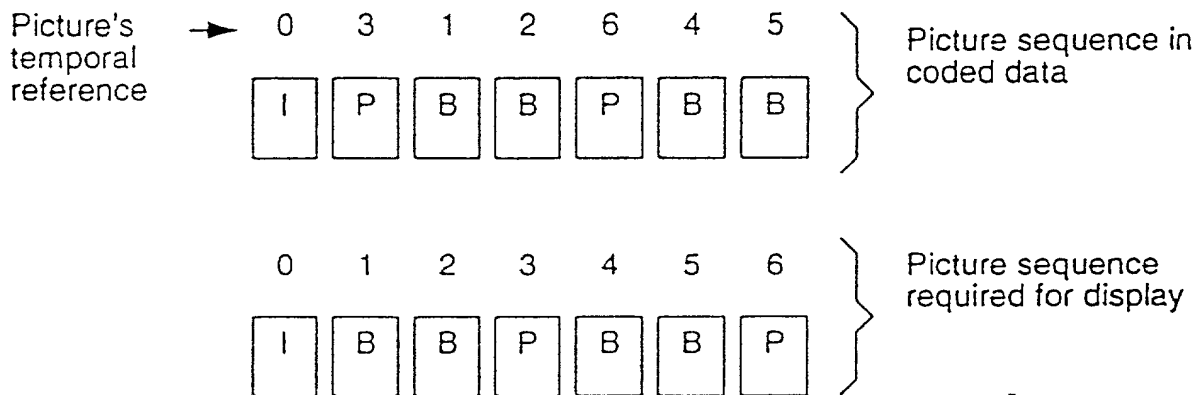


FIG.85

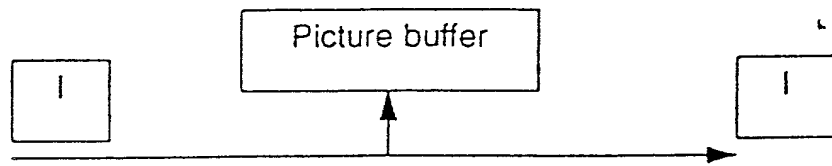


FIG.86

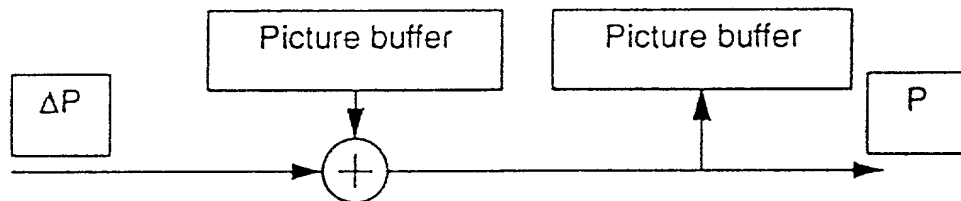


FIG.87

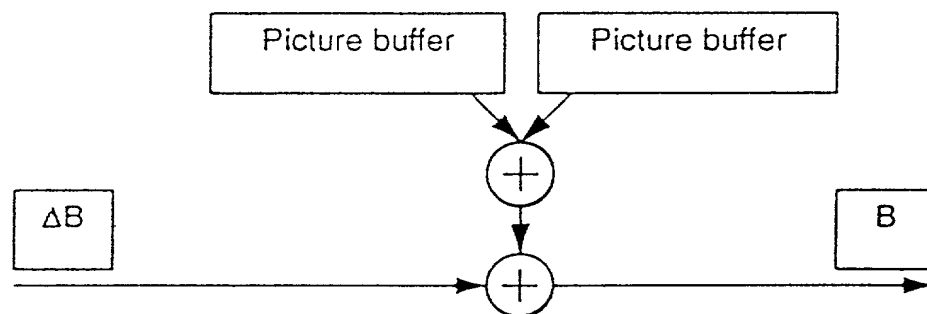


FIG.88

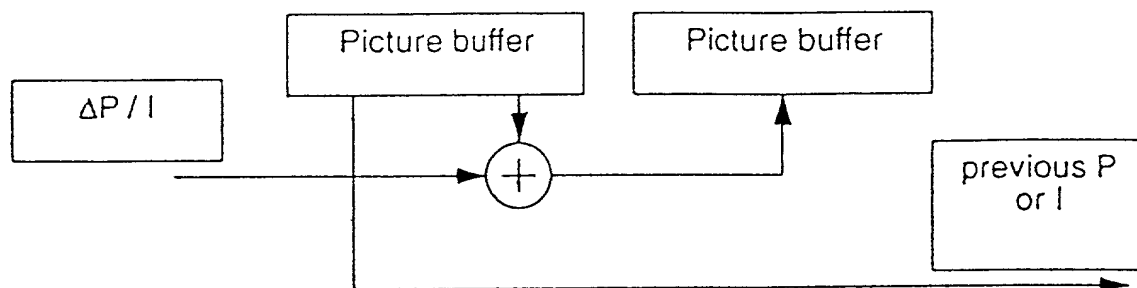


FIG.89

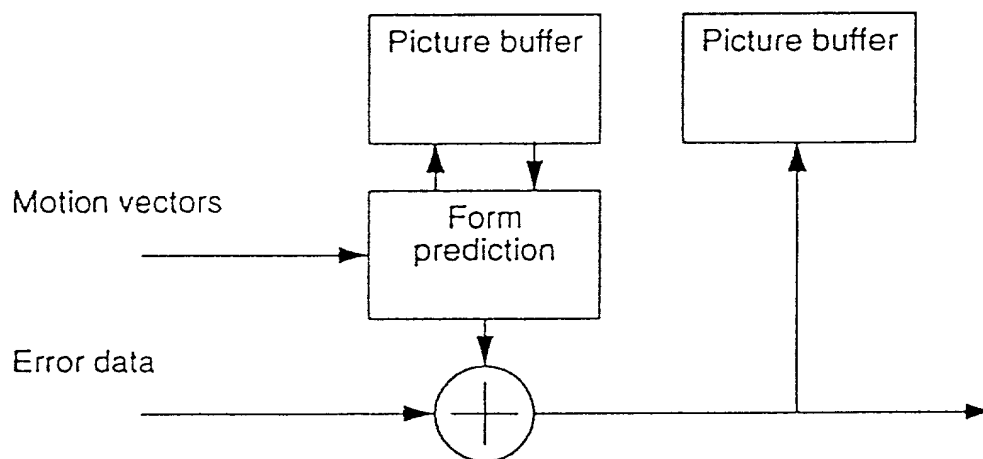


FIG.90

0975382 02001

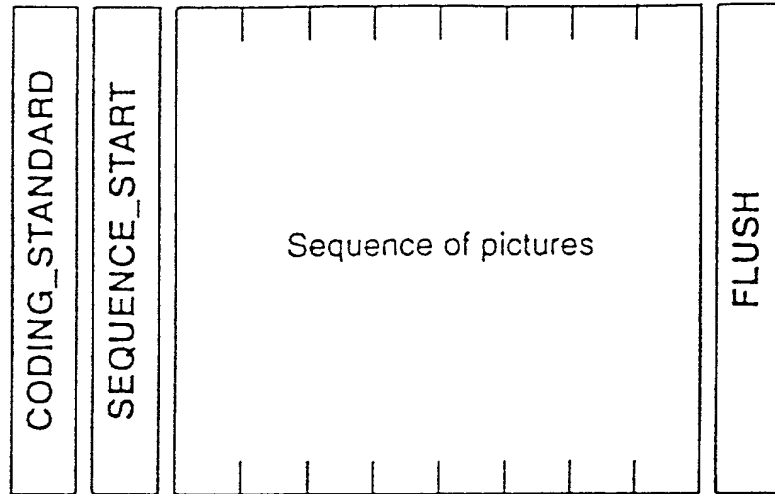


FIG.91

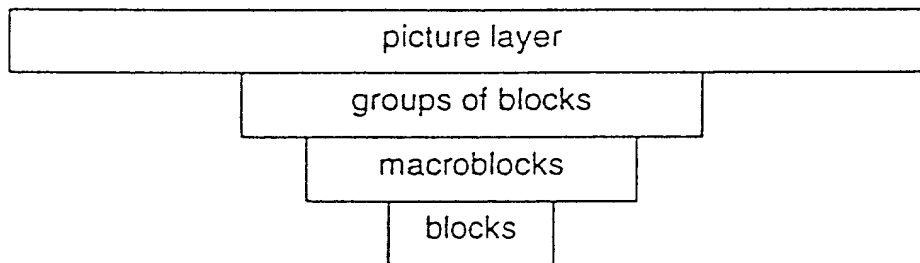


FIG.92

FIG. 93

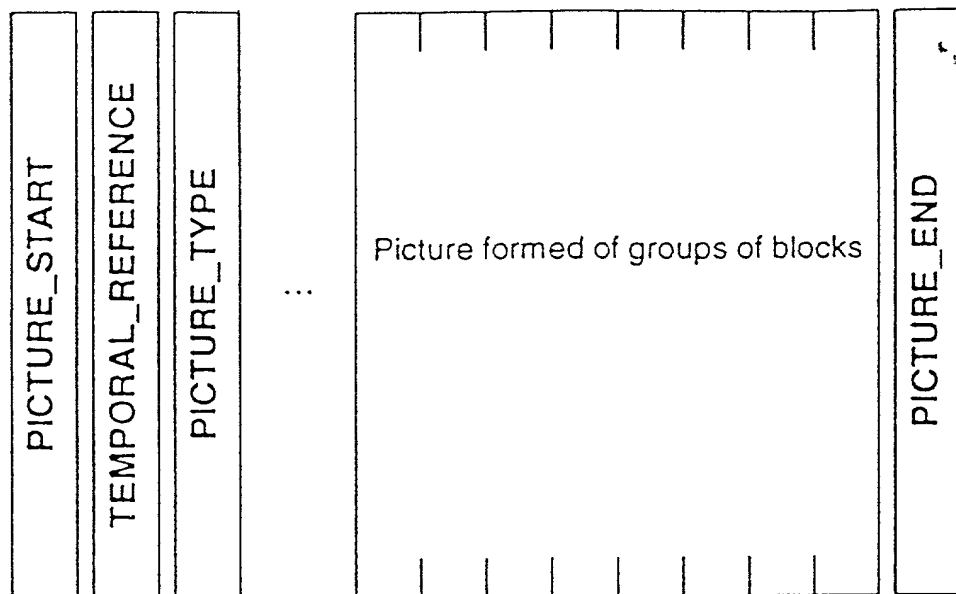


FIG.93

CIF		QCIF	
0	1	0	
2	3	2	
4	5	4	
6	7		
8	9		
10	11		

FIG.94

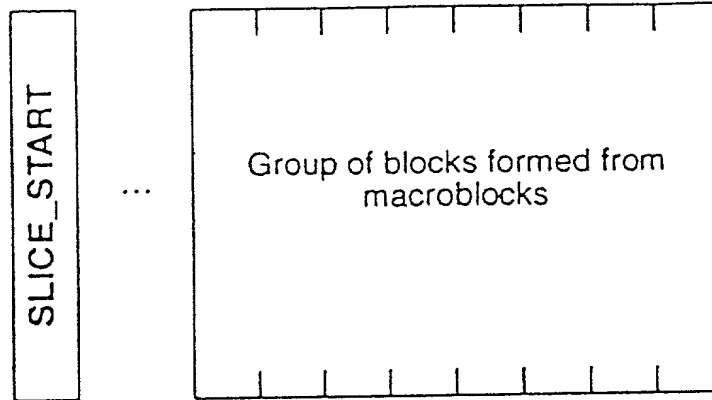


FIG.95

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22
23	24	25	26	27	28	29	30	31	32	33

FIG.96

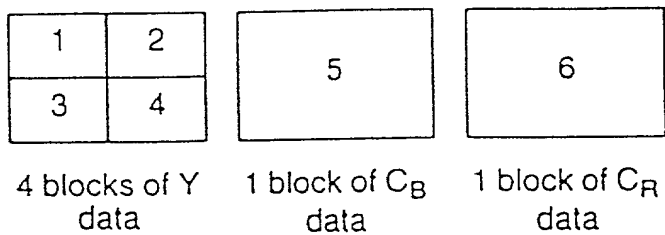


FIG.97

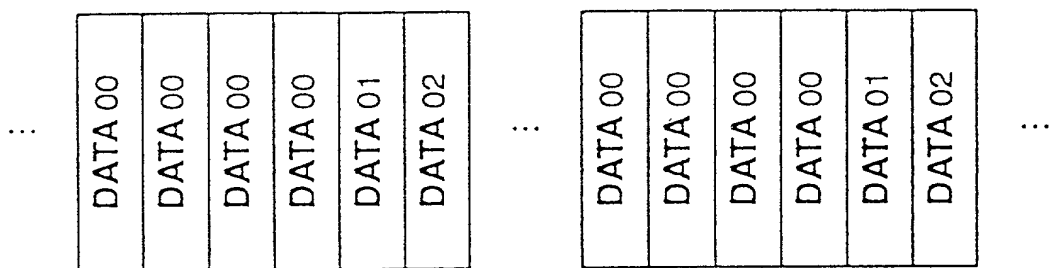


FIG.98

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

⋮

59	58	59	60	61	62	63	64
----	----	----	----	----	----	----	----

FIG.99

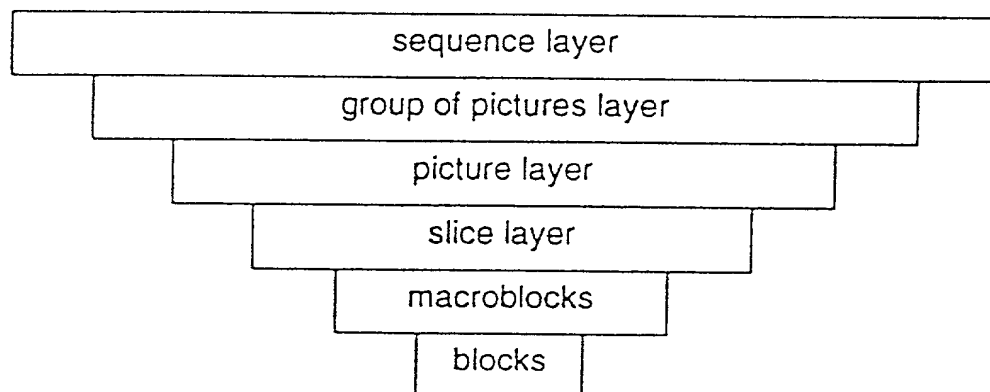


FIG. 100

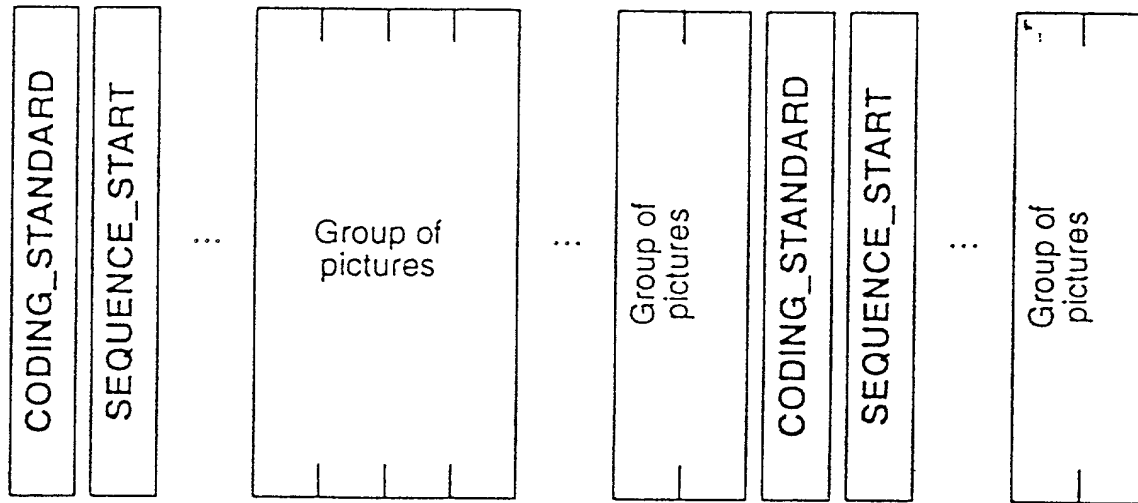


FIG. 101

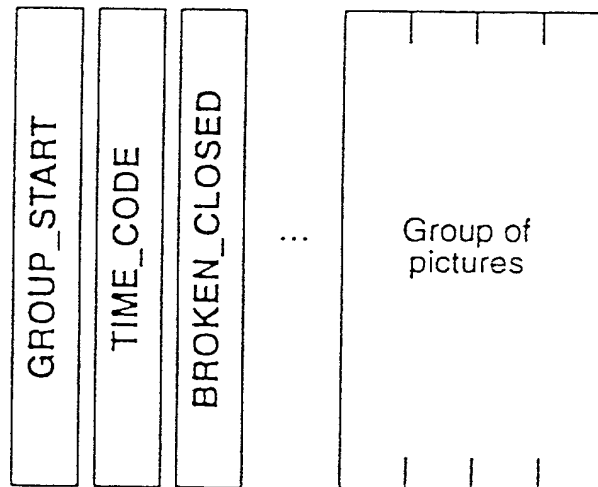


FIG. 102

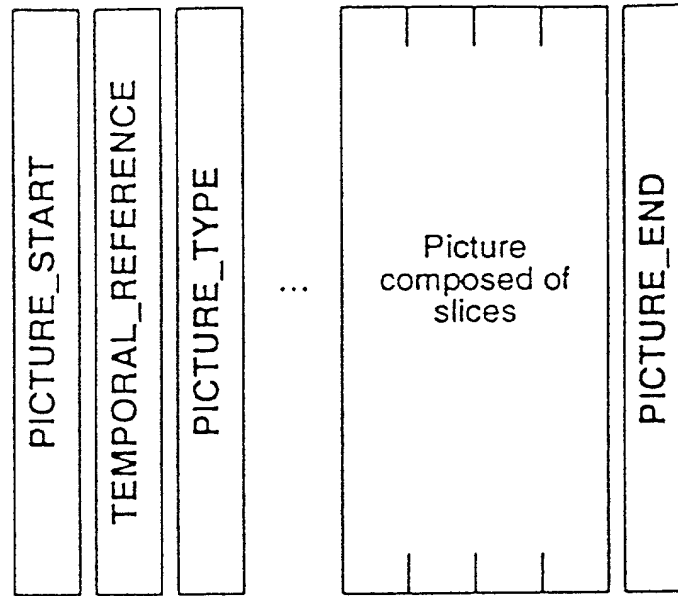


FIG. 103

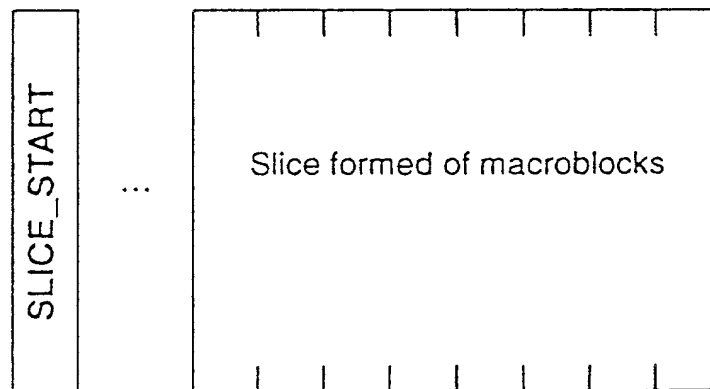


FIG. 104

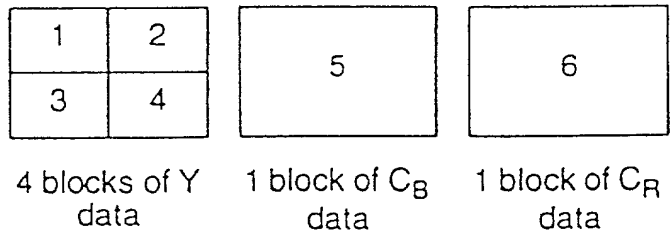


FIG. I 05

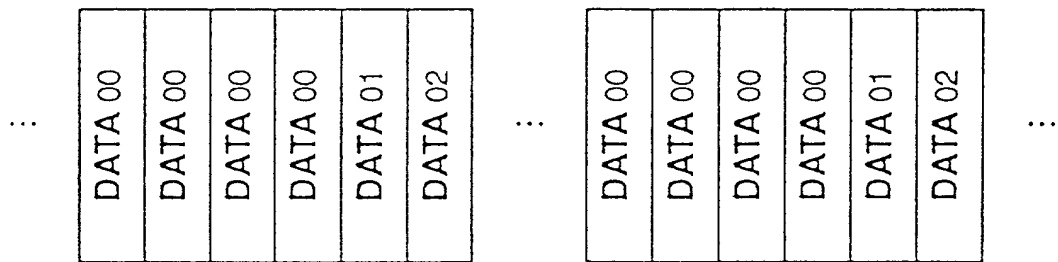


FIG. I 06

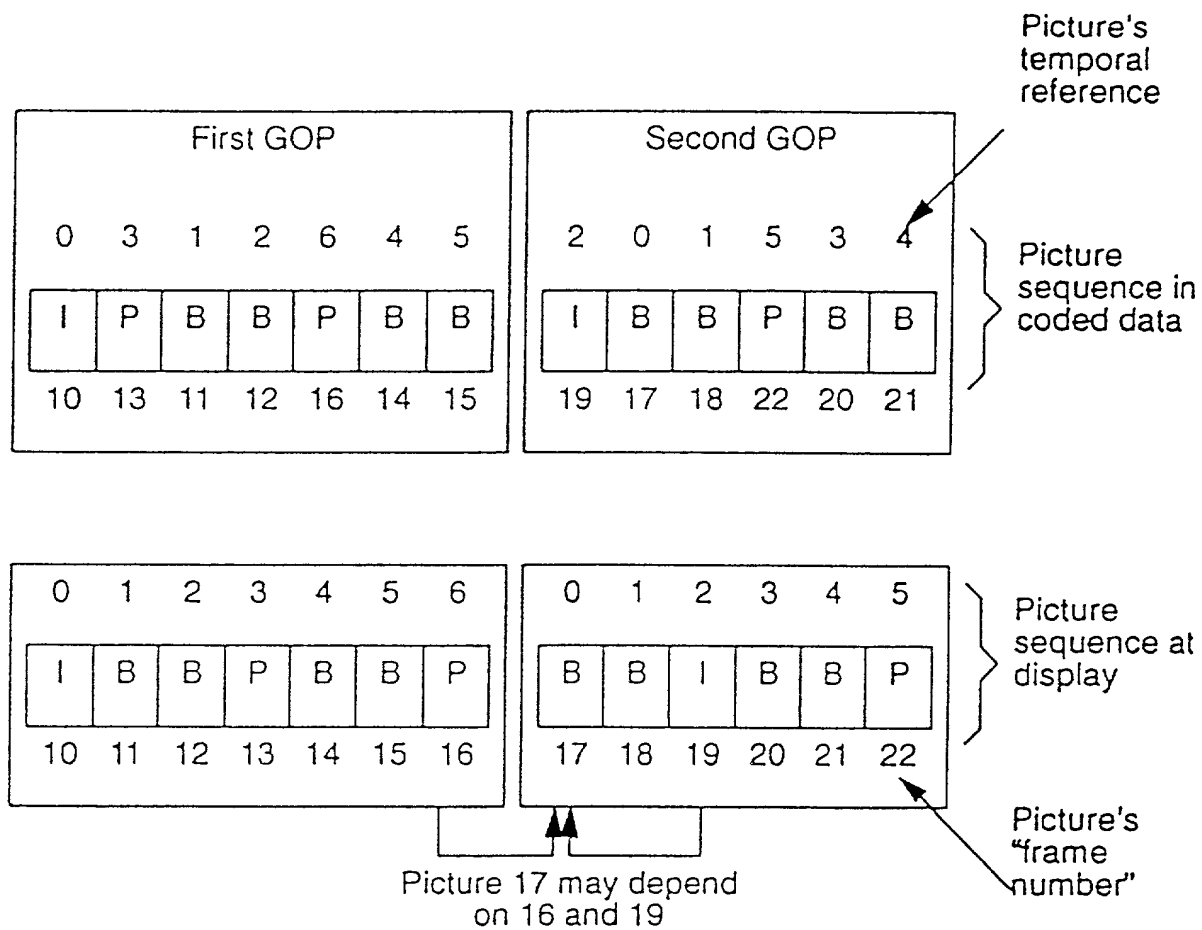


FIG. 107



FIG. 108

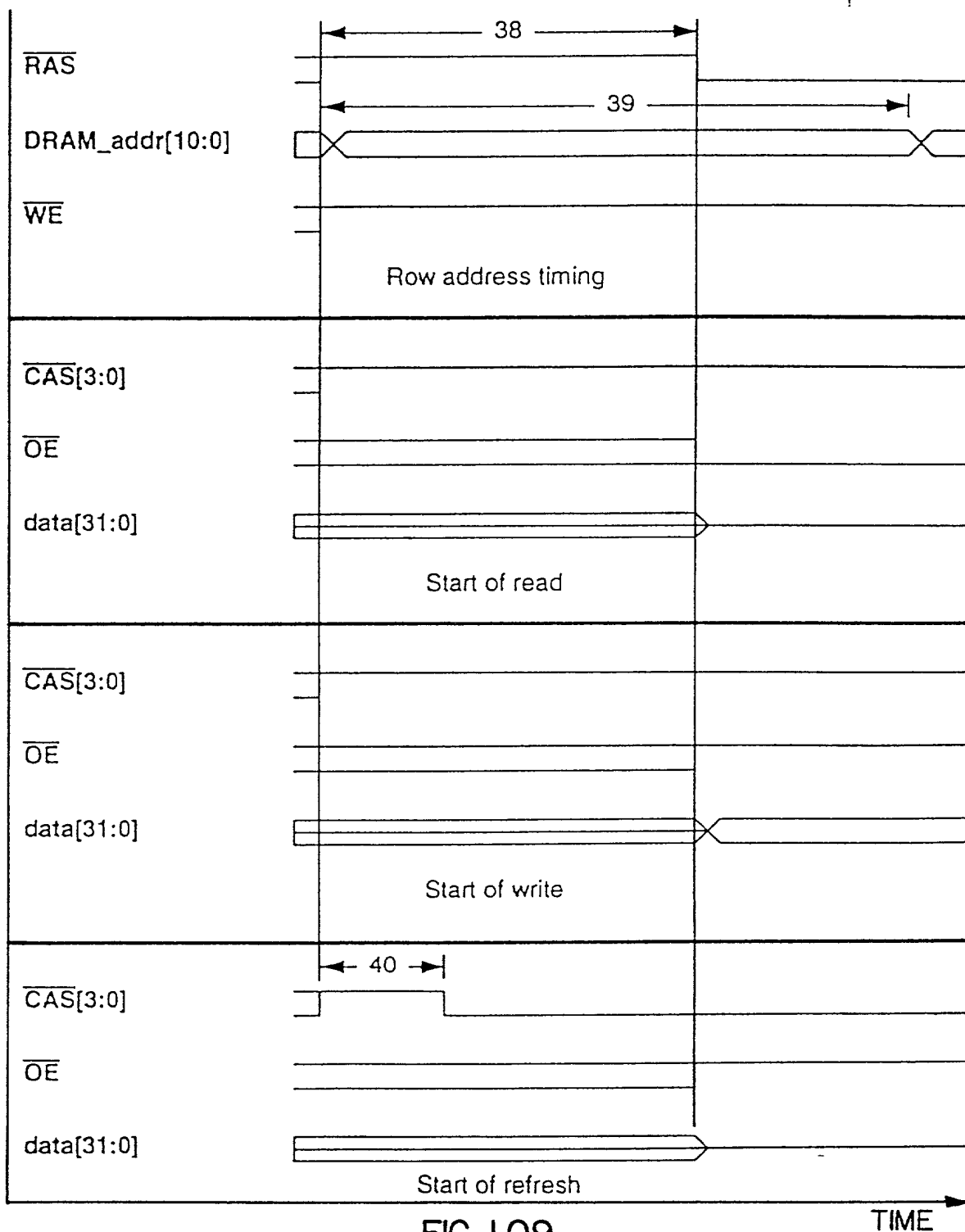


FIG. 109

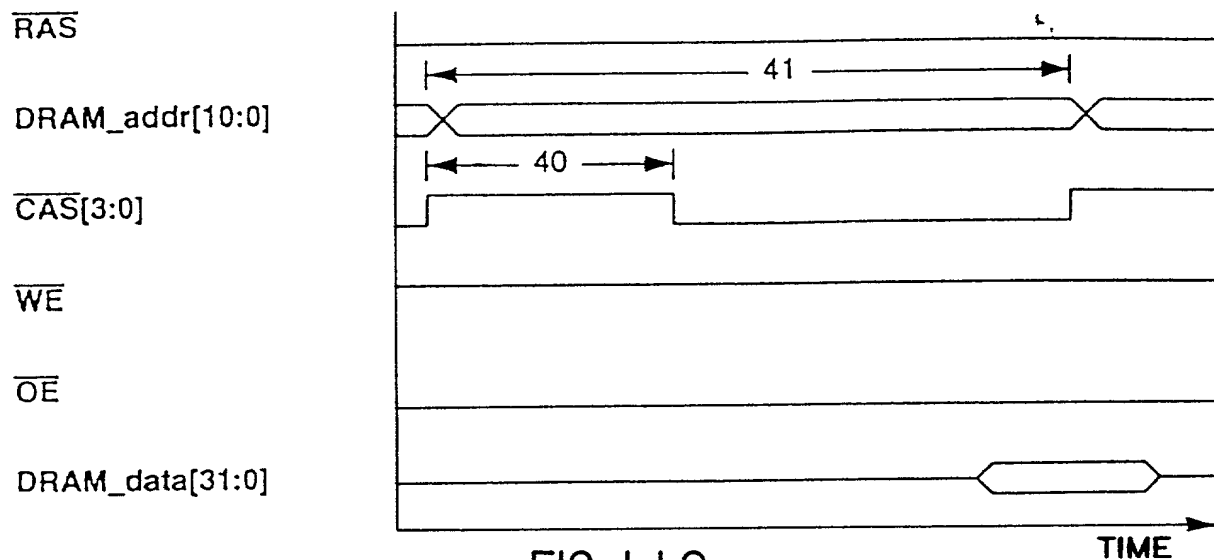


FIG. 110

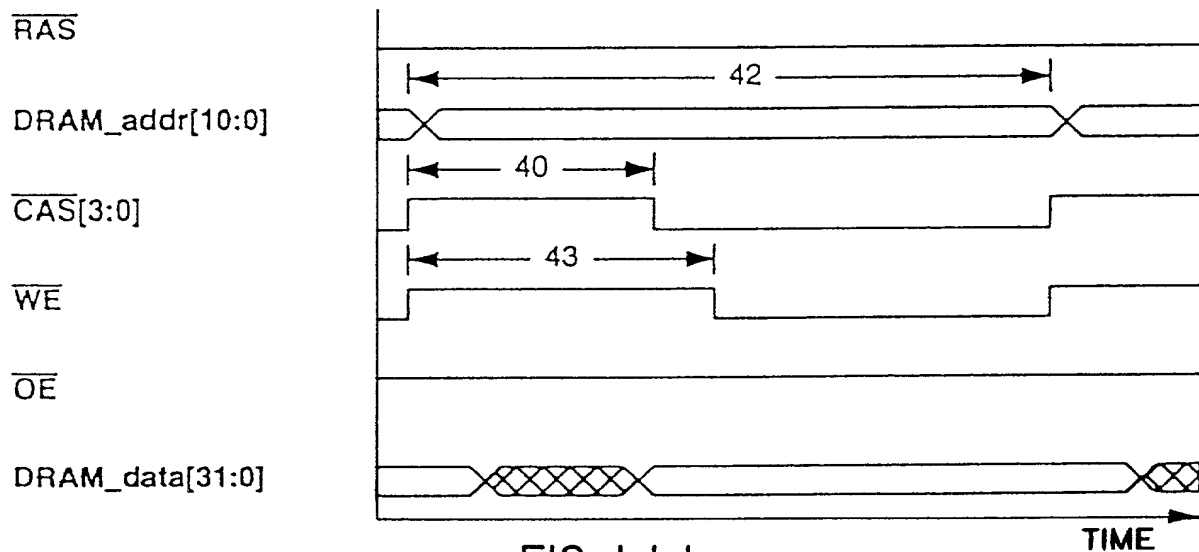


FIG. 111

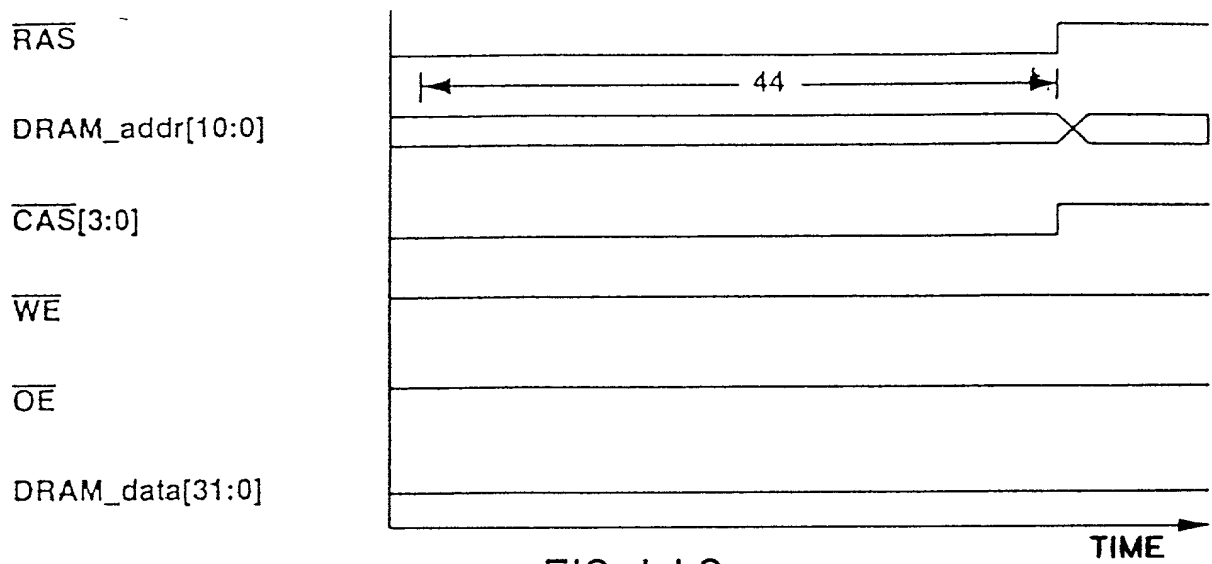


FIG. 112

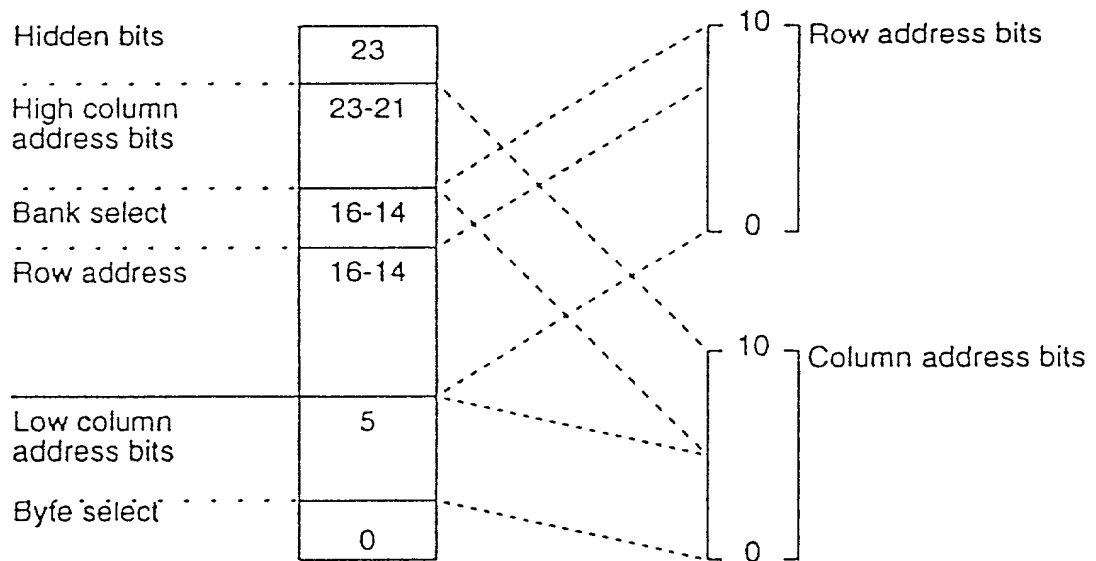


FIG. 113

09/333 0303 10000 2365/60

Any signal

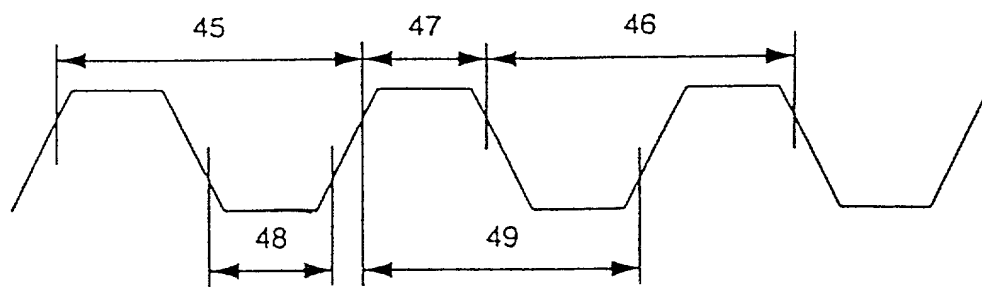


FIG. 114

Any signal

Any other
signal

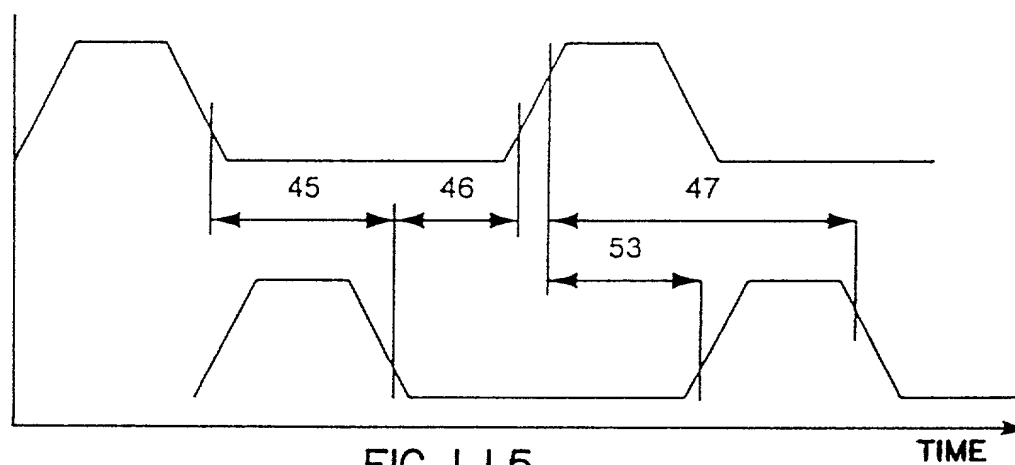
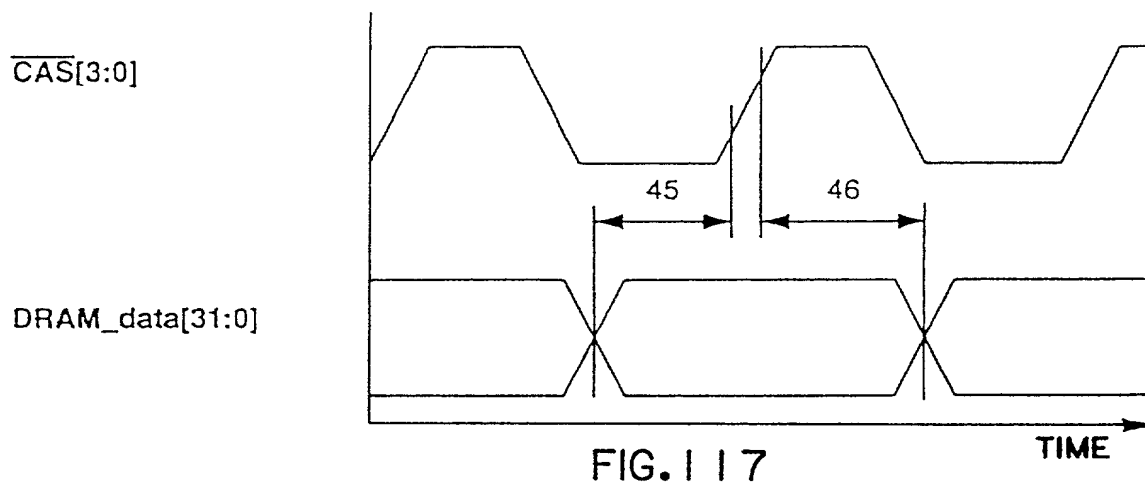
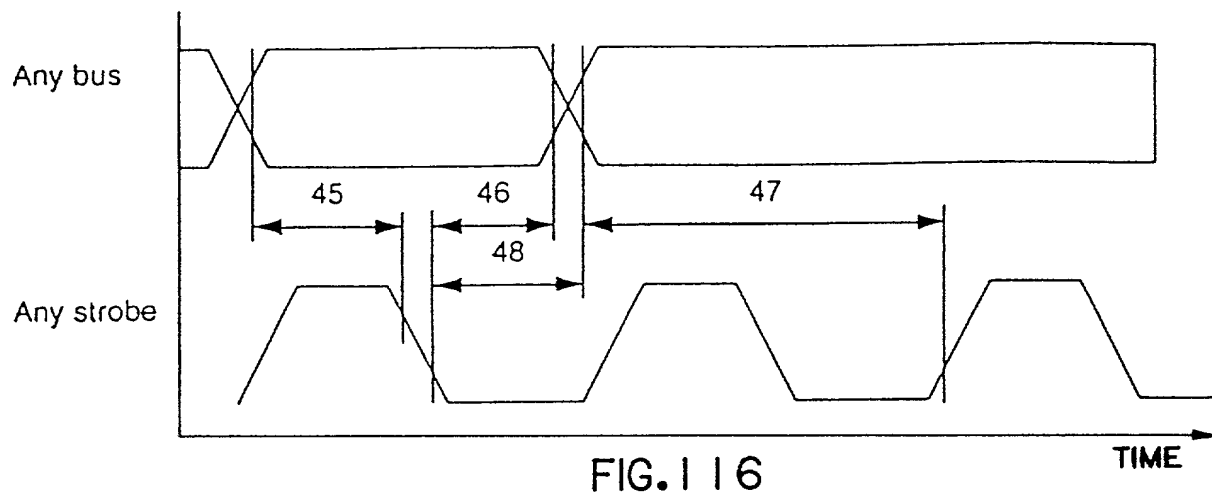


FIG. 115

108020 2855/60



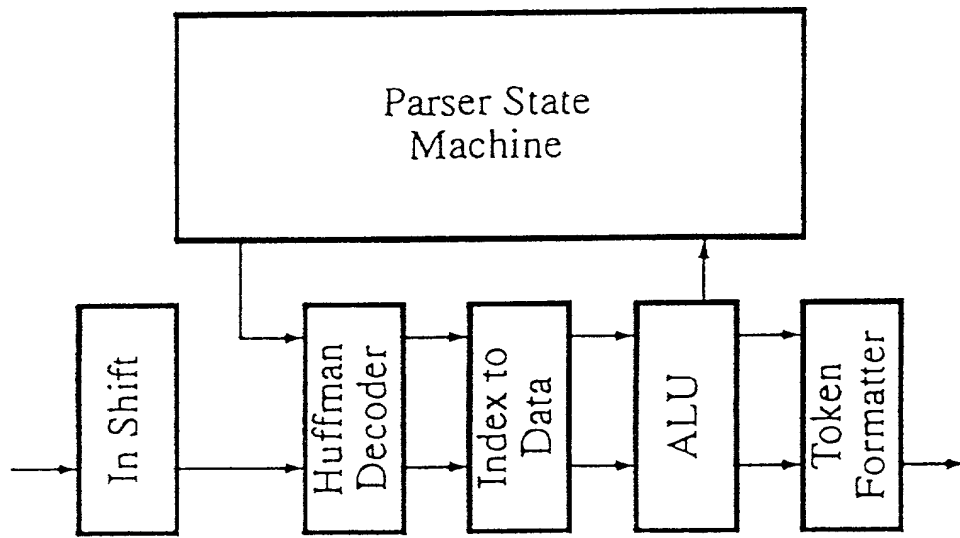


FIG. 118

0975322 020201

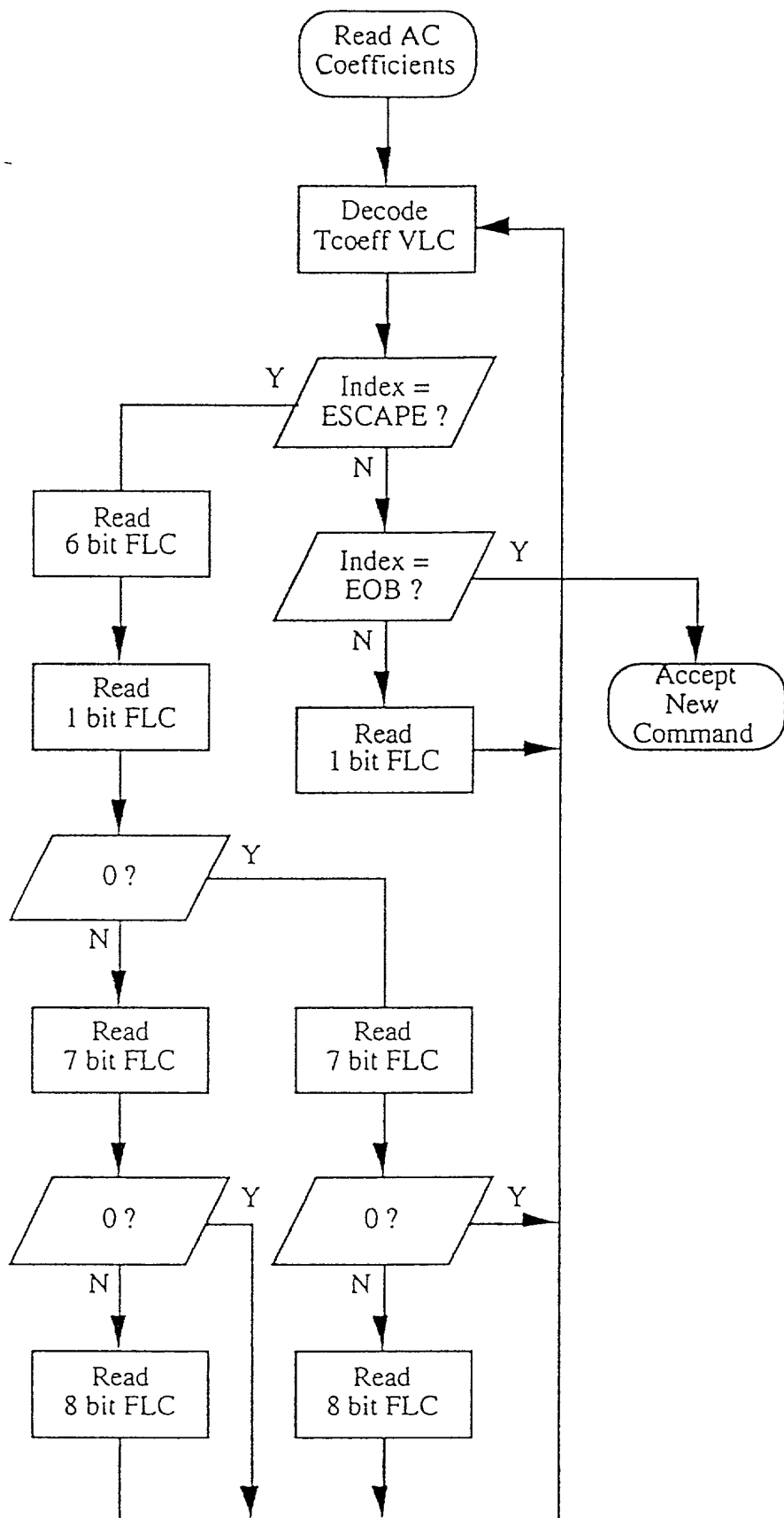


FIG. 119

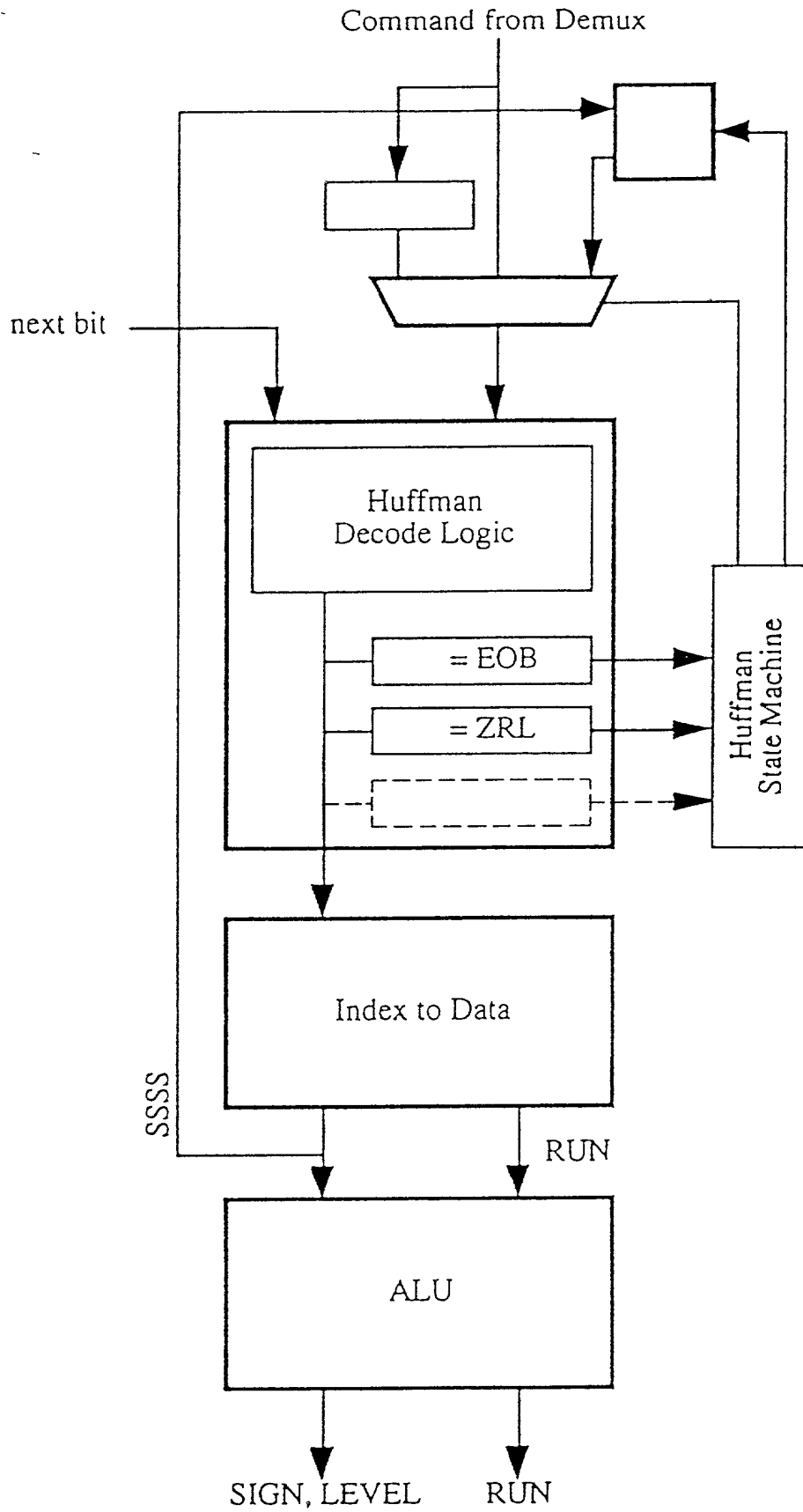


FIG. 120

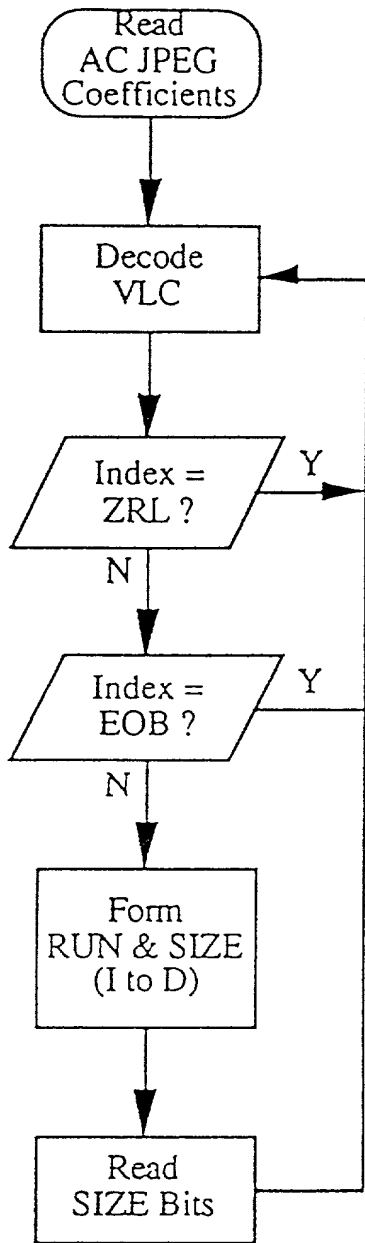


FIG. 12 A

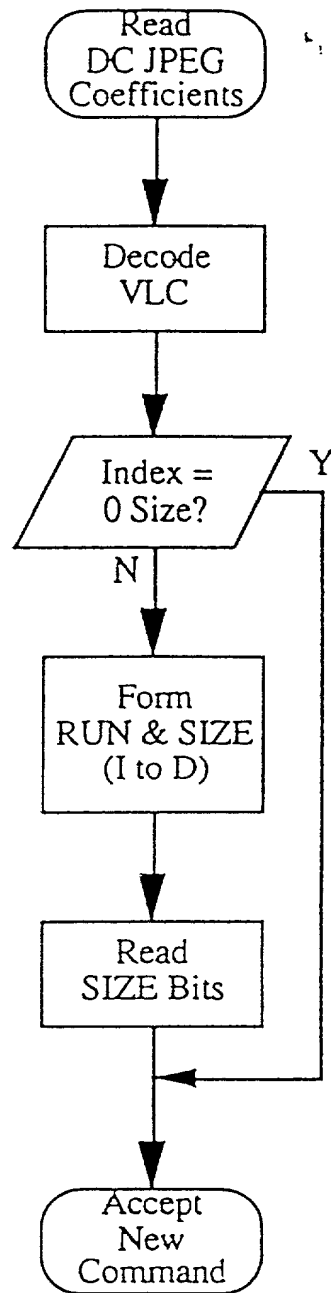


FIG. 12 B

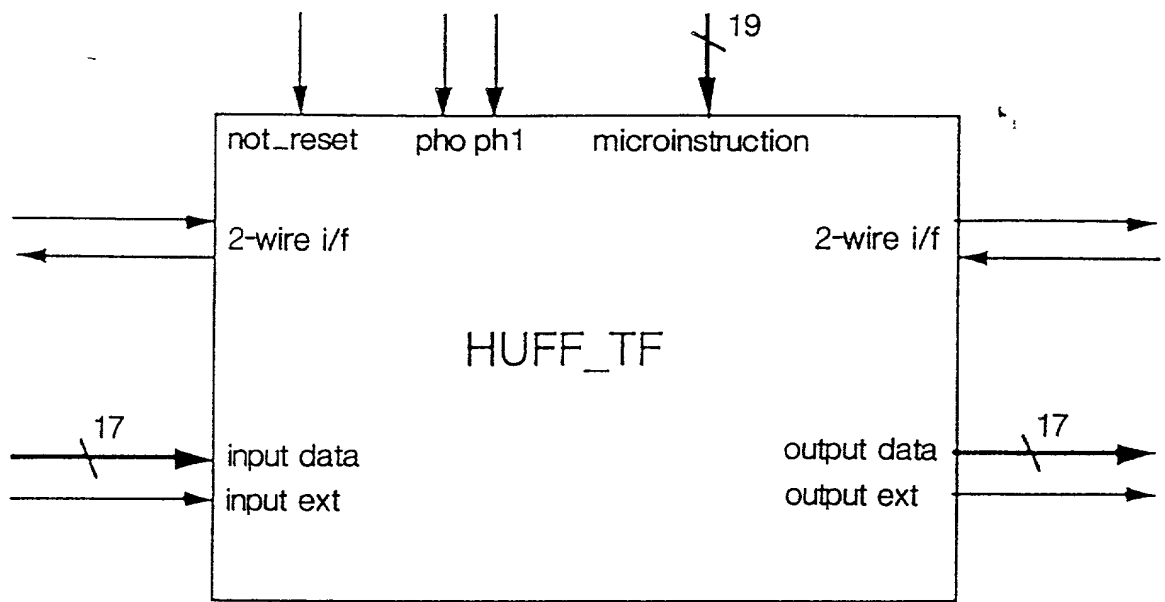


FIG. 122

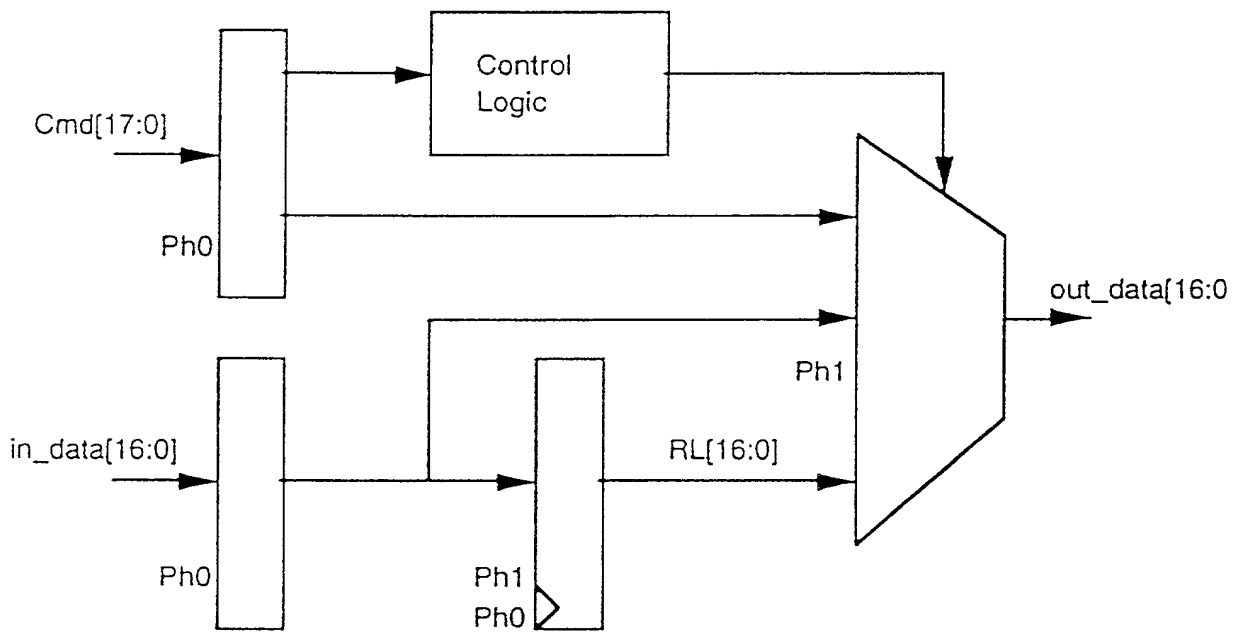


FIG. 123

0975321 020804

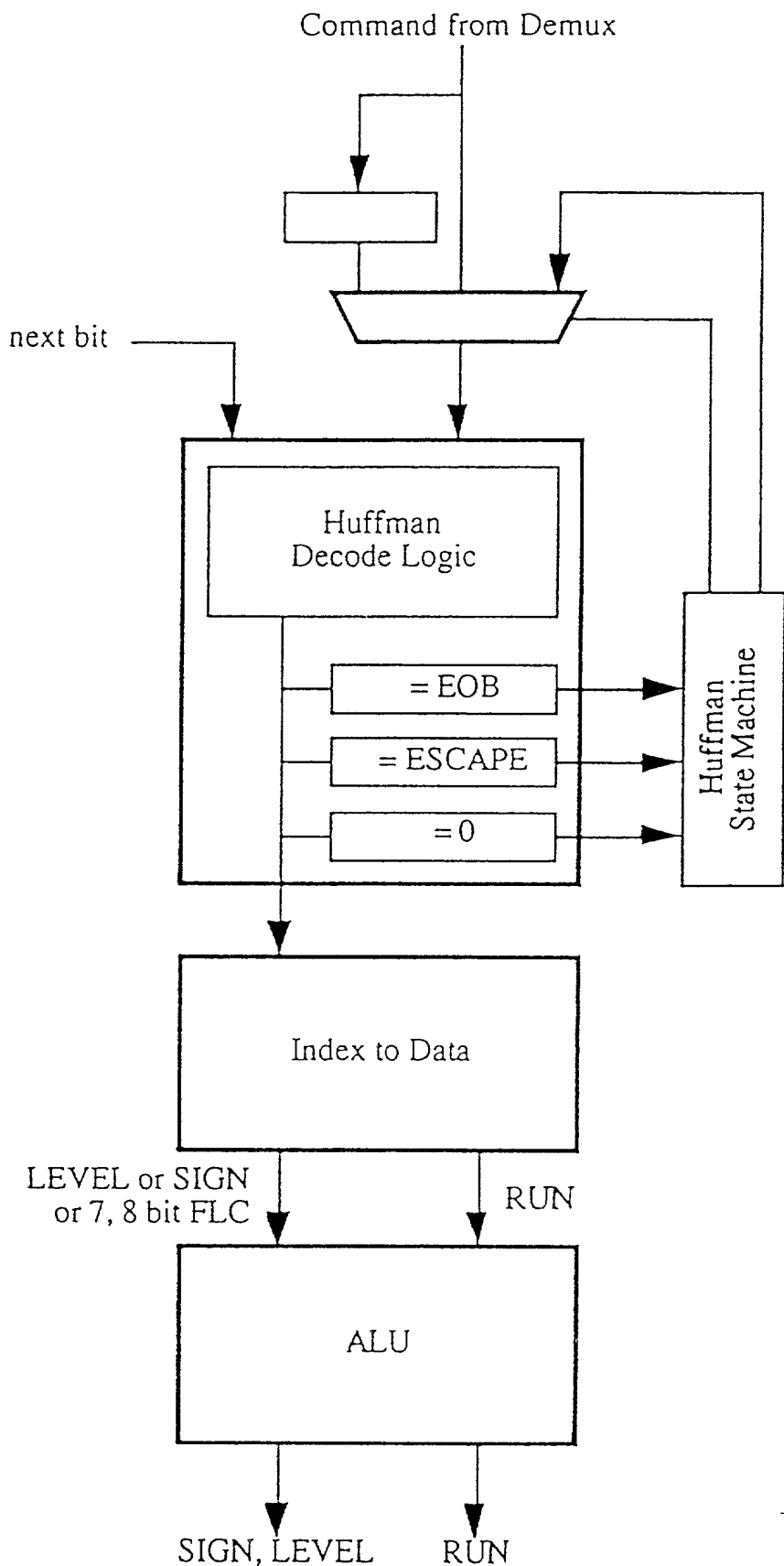


FIG. 124

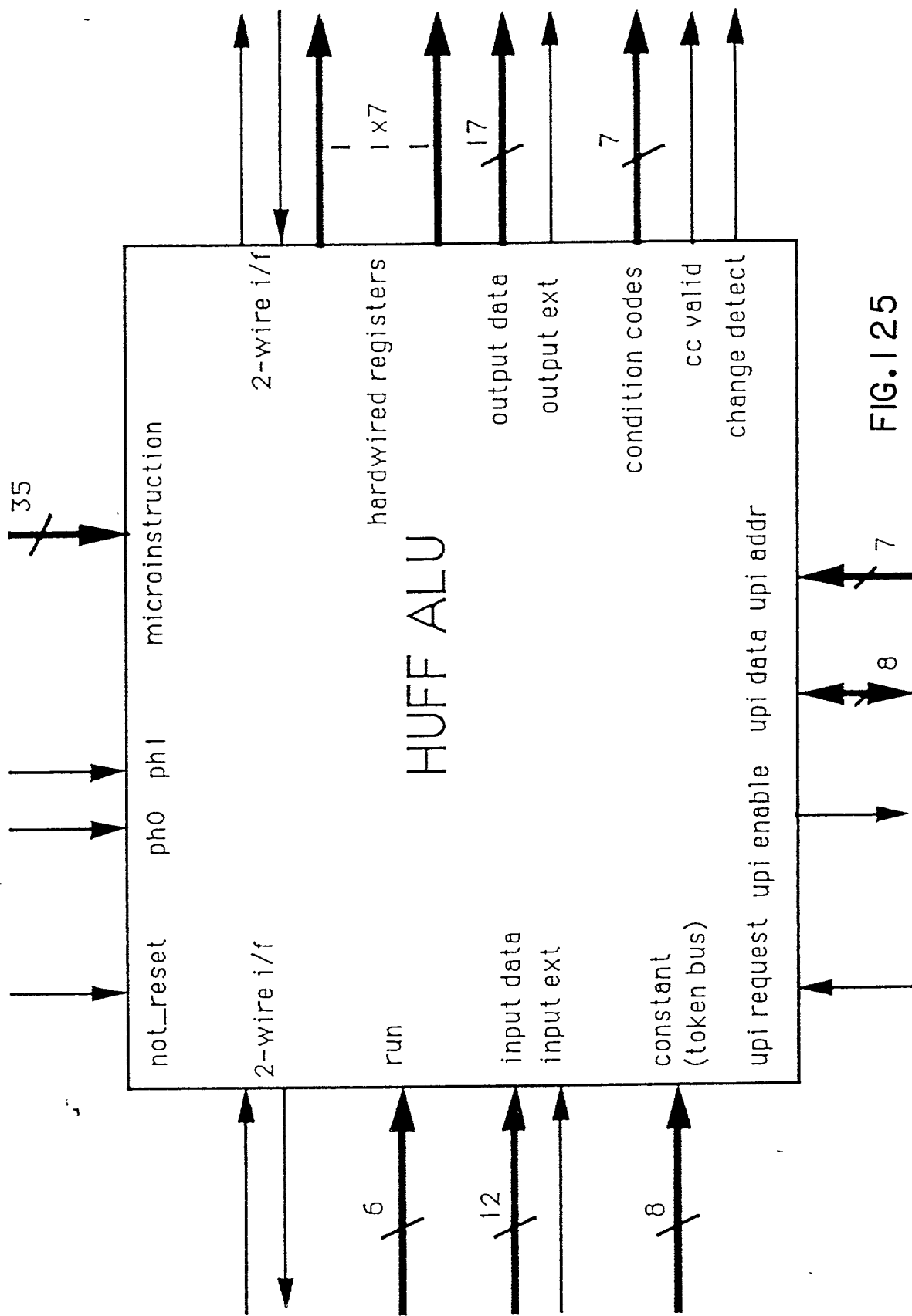


FIG. 125

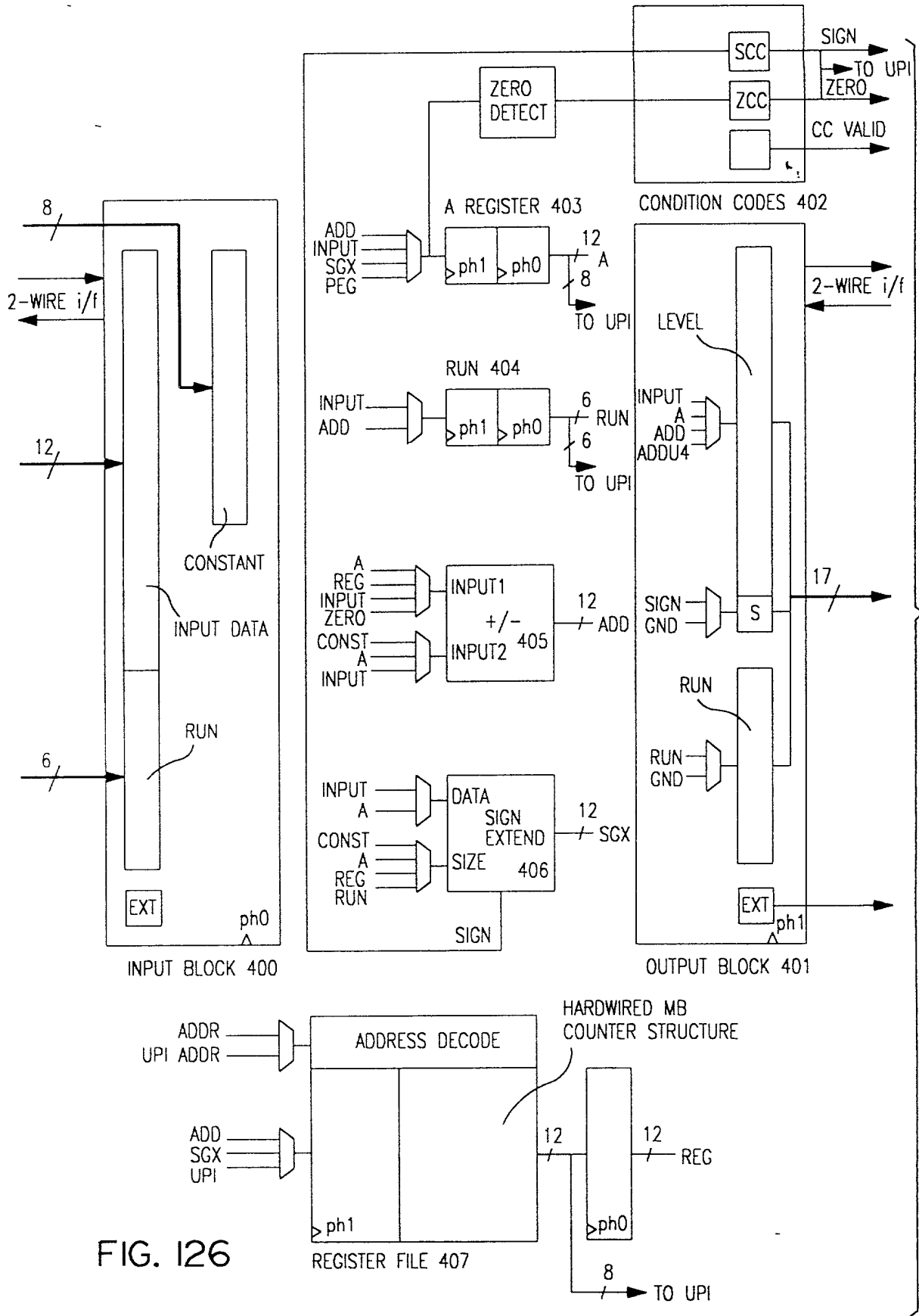


FIG. 126

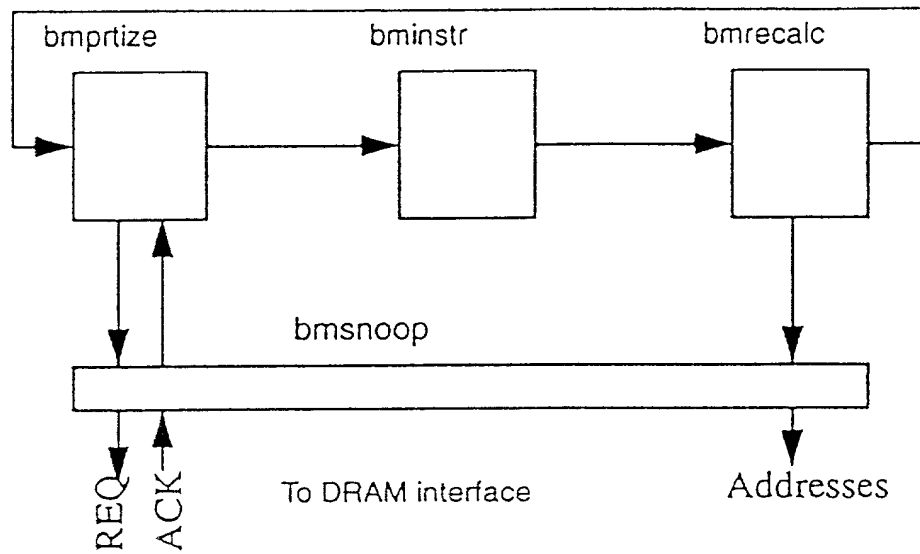


FIG. 1 27

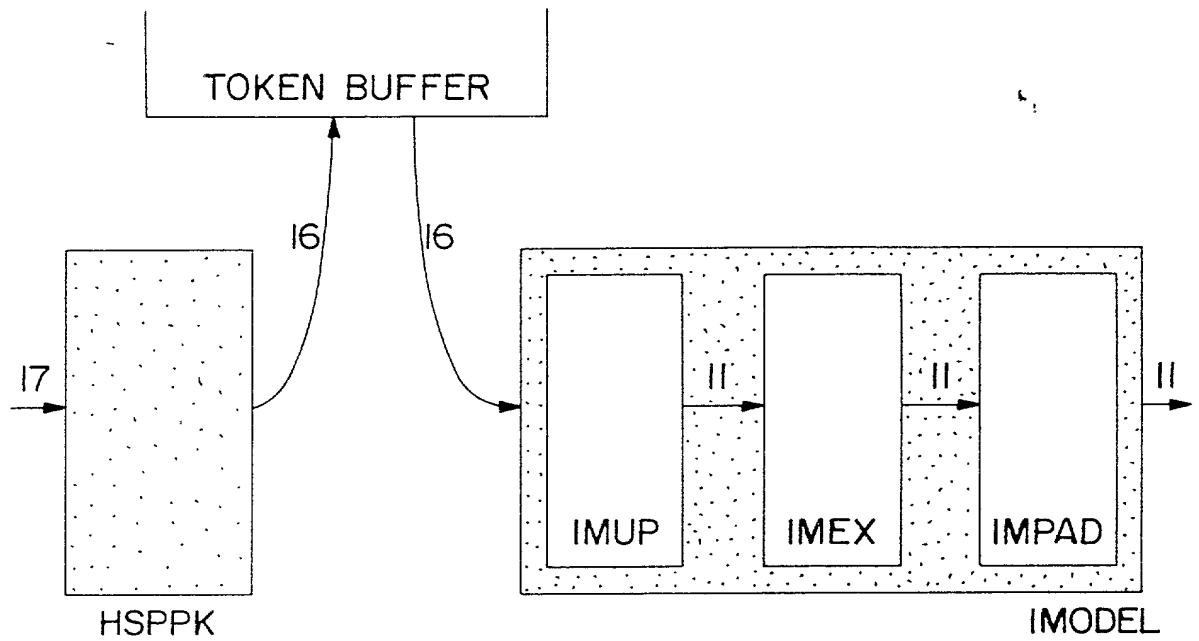


FIG. 128

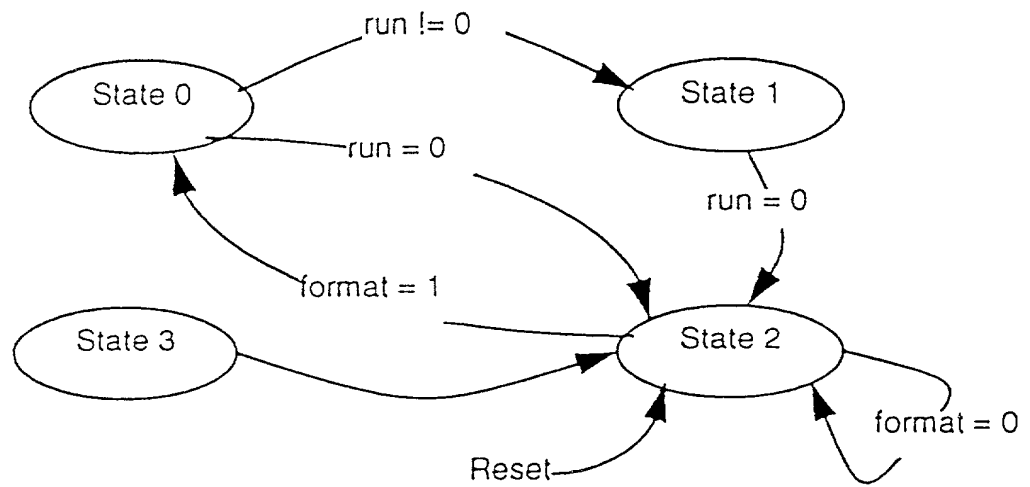


FIG. 129

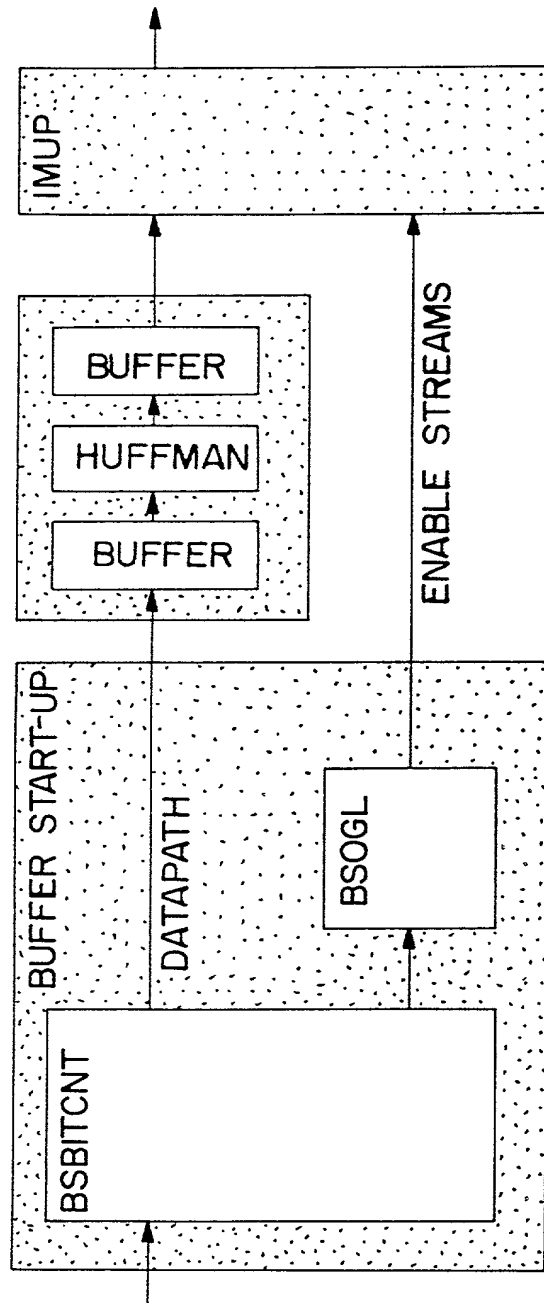


FIG. 130

09/533 02004
100020 285/50

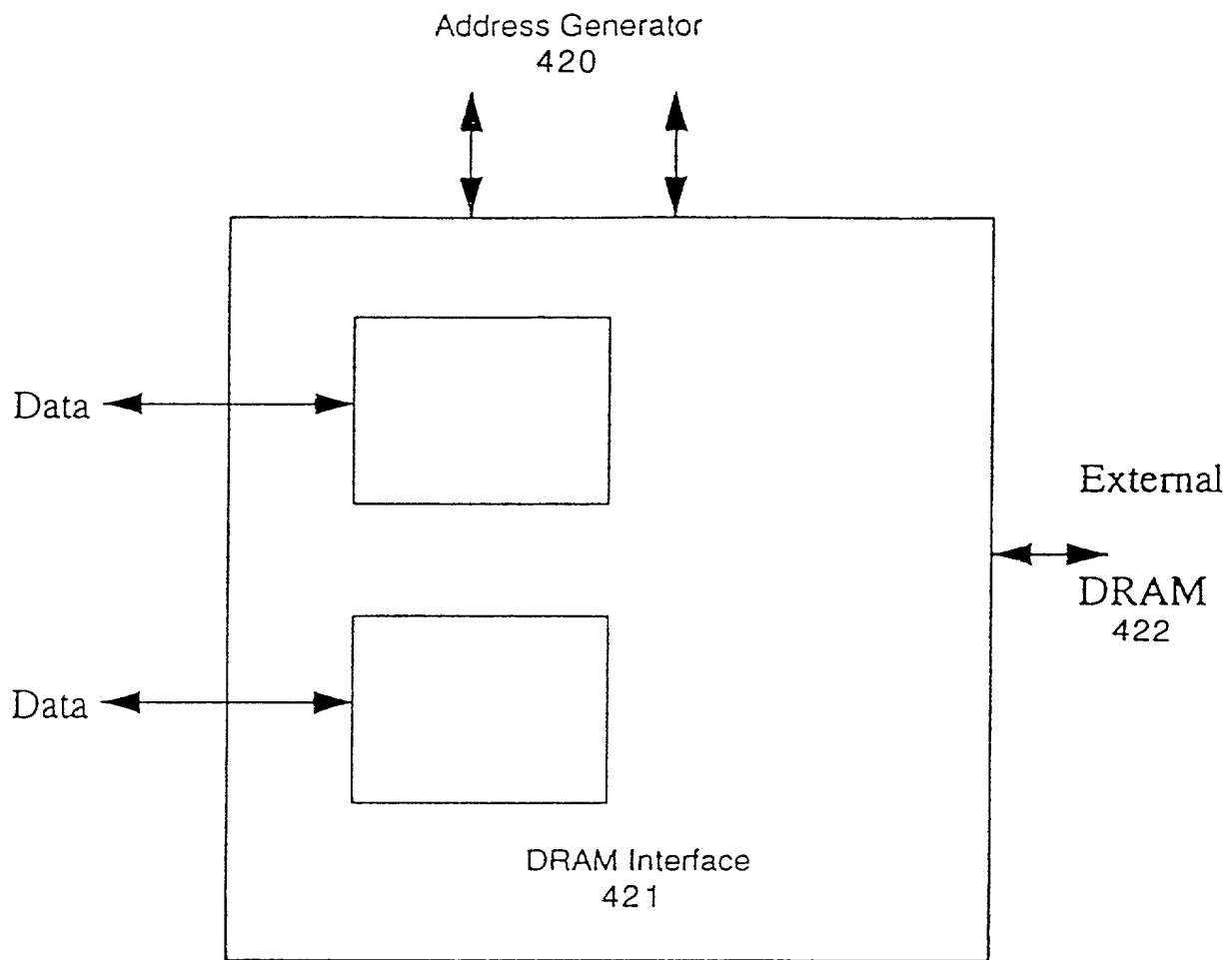


FIG. 131

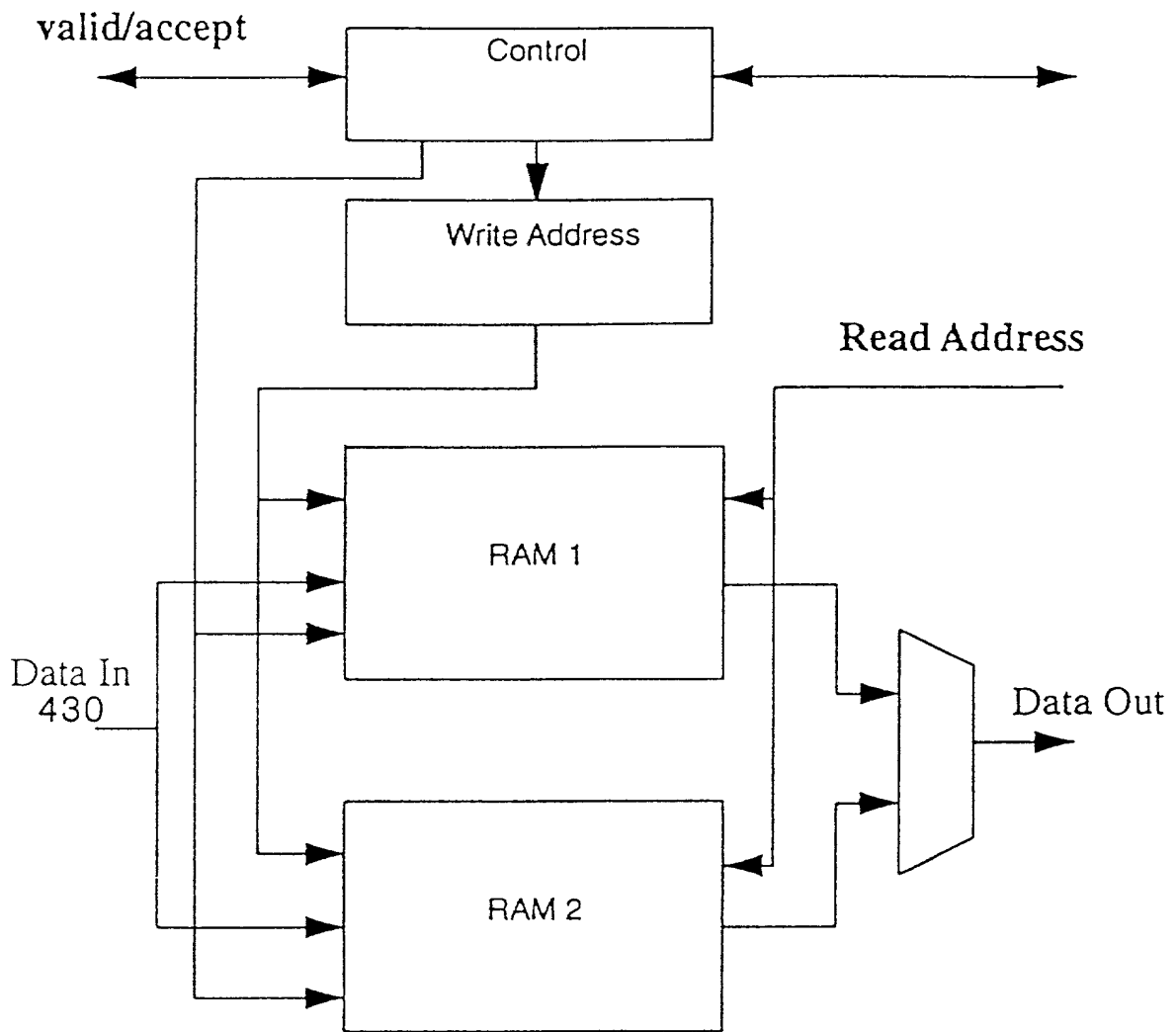


FIG. 132

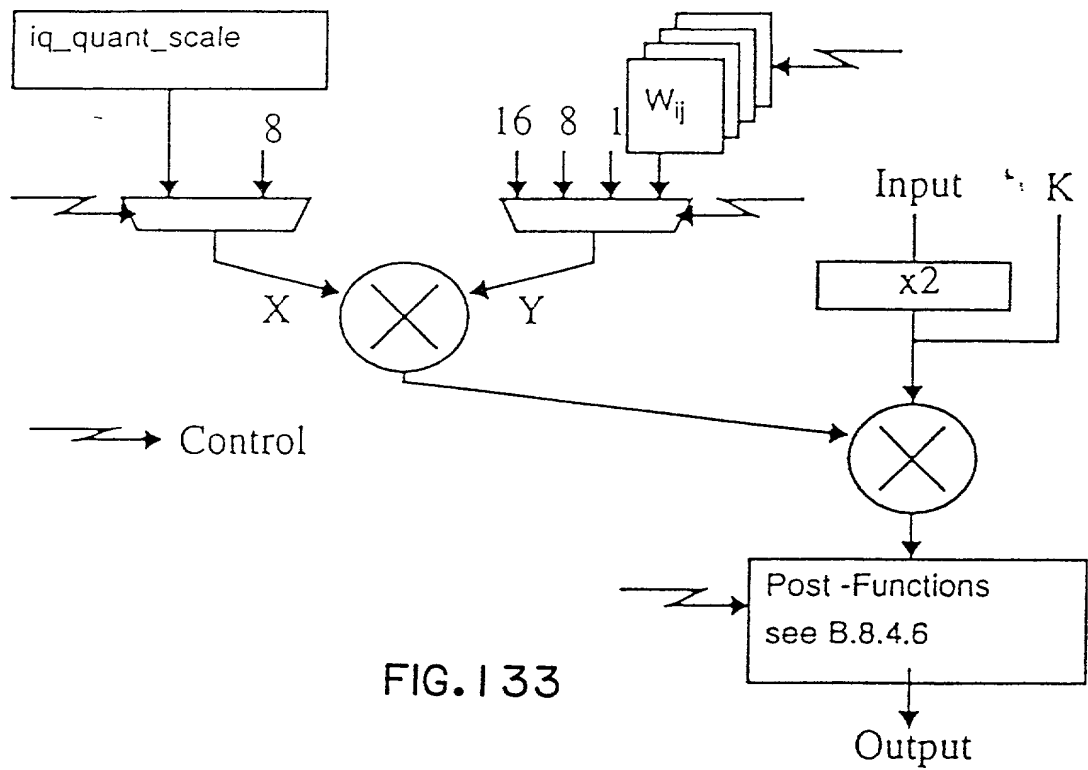


FIG. 133

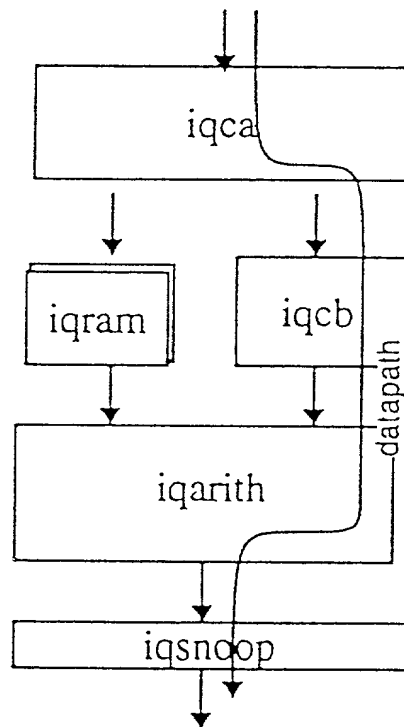


FIG. 134

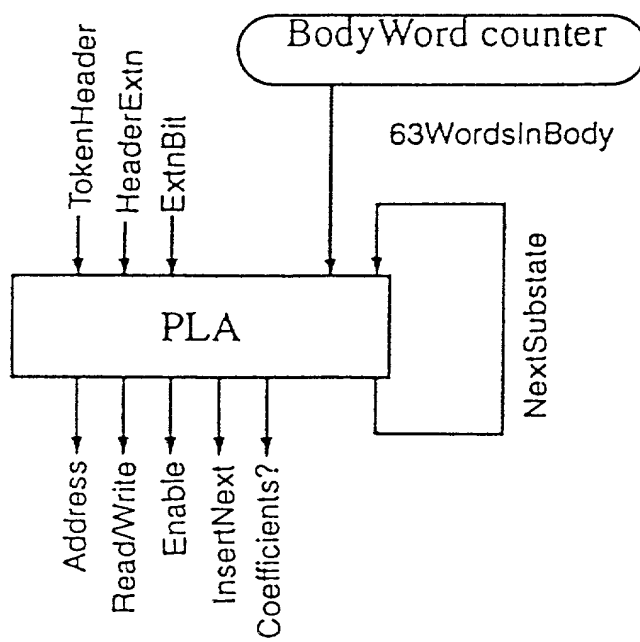


FIG. 135

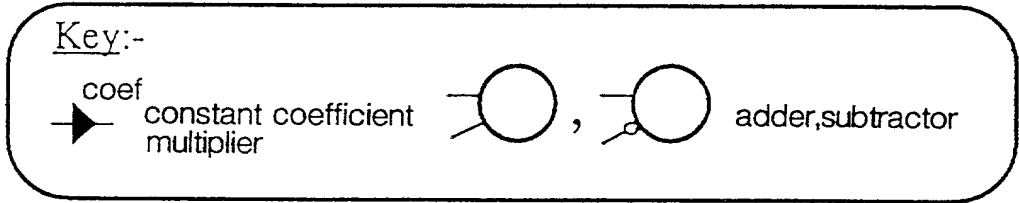
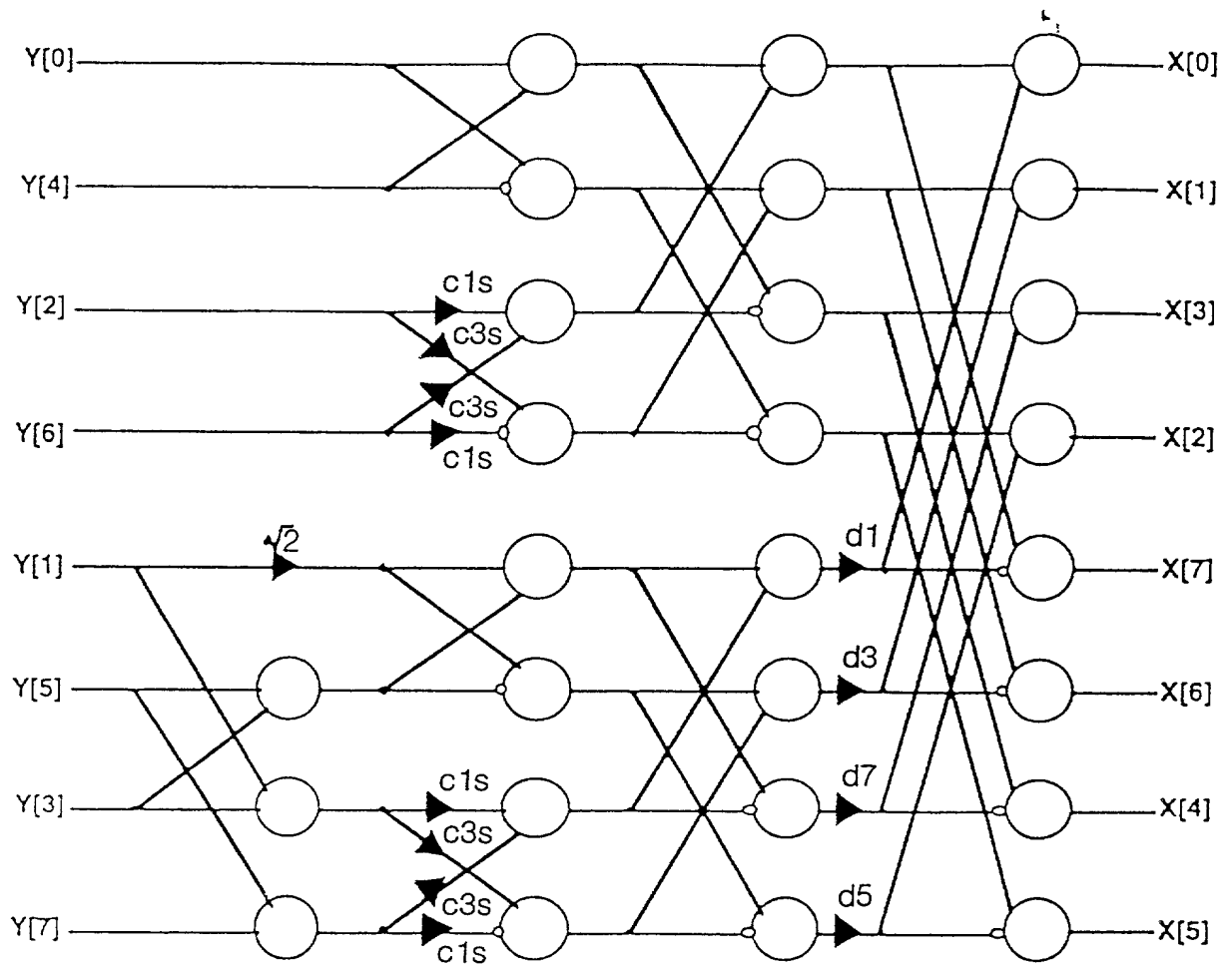


FIG. 136

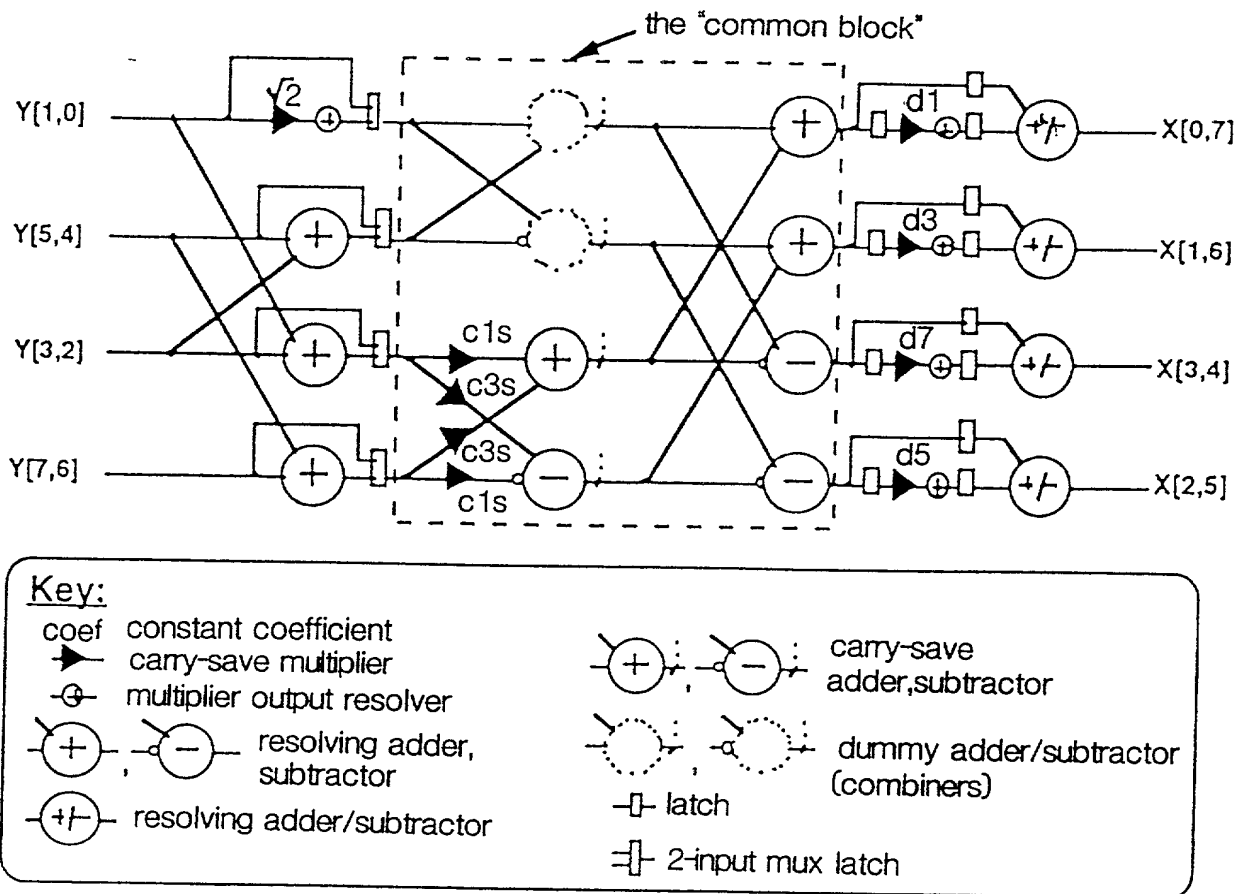


FIG. 137

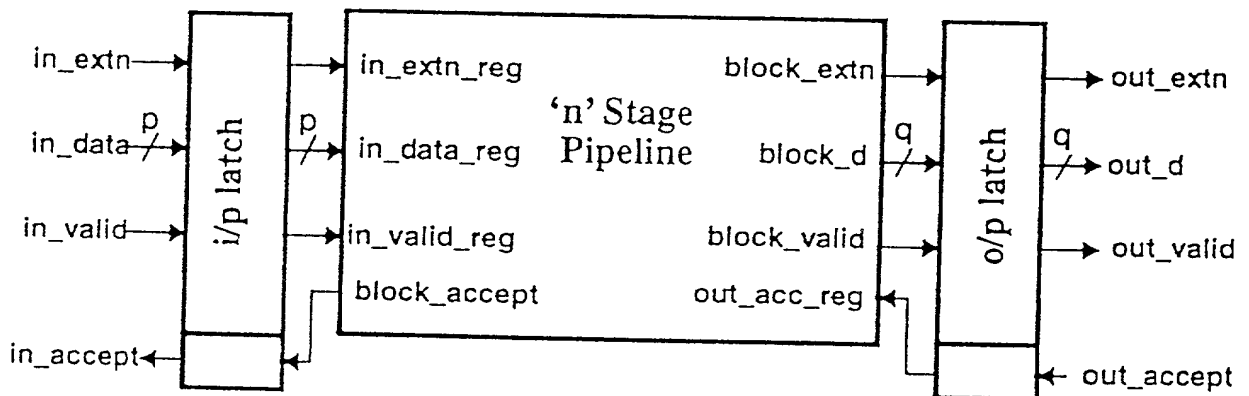


FIG. 138

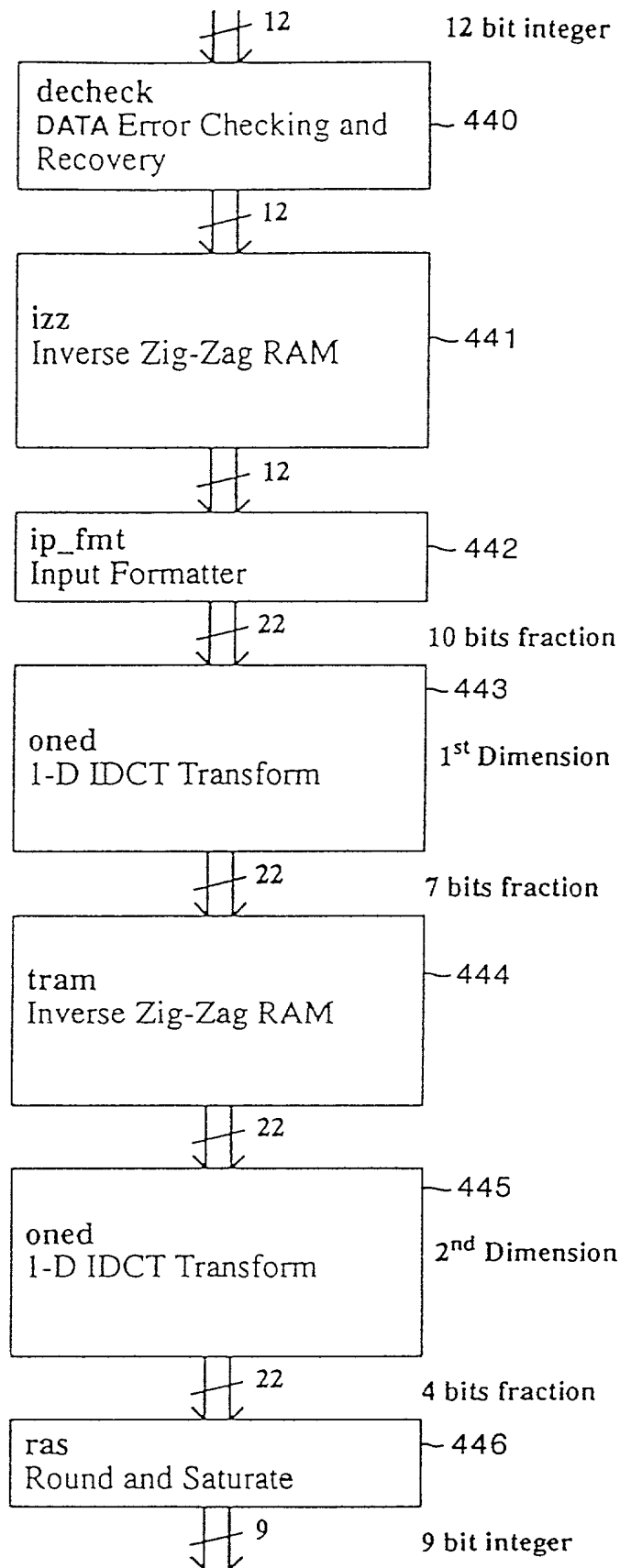


FIG. 139

09779382 020801

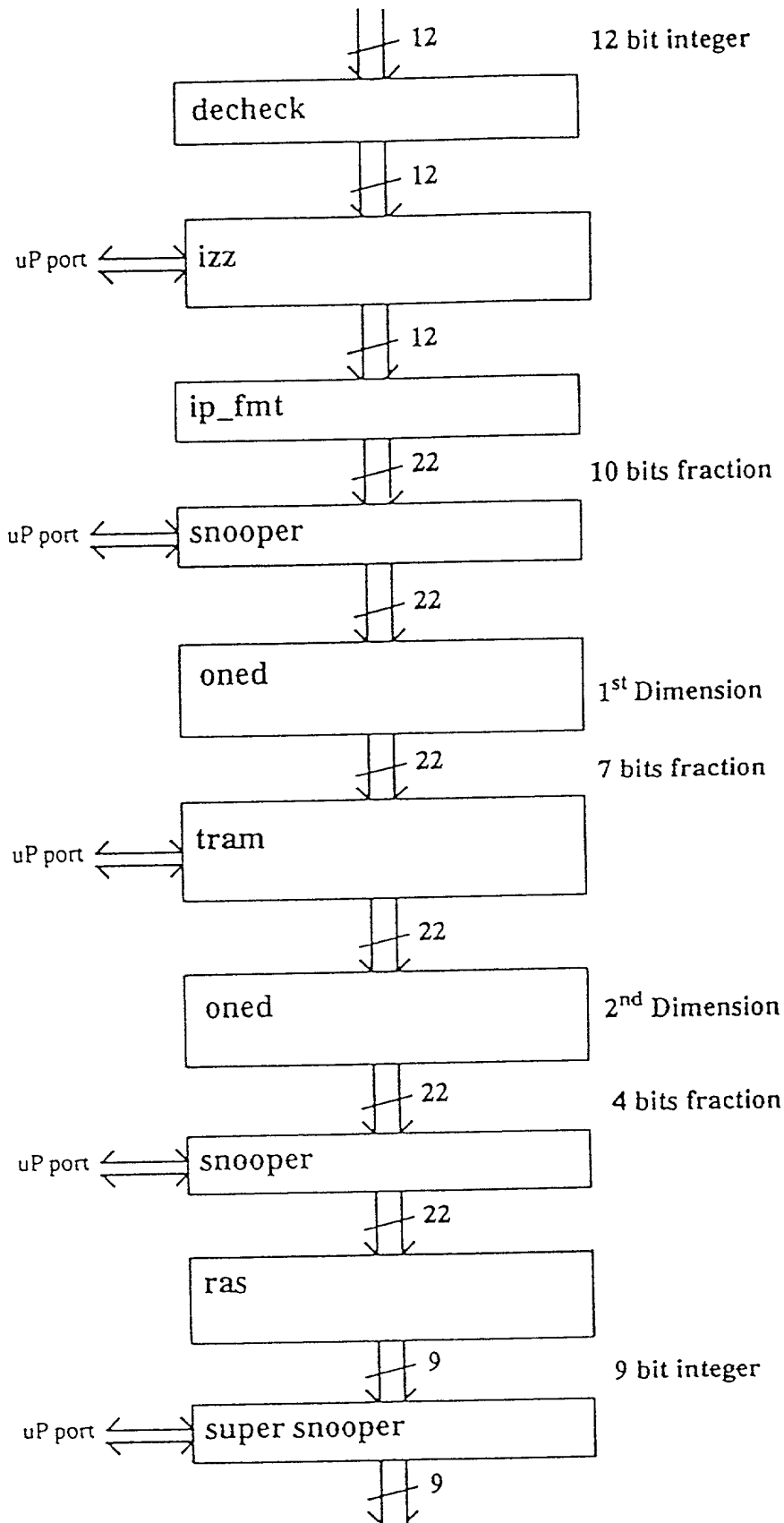
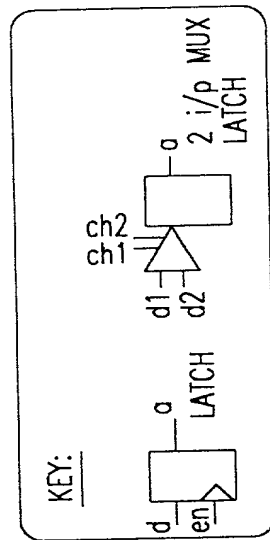
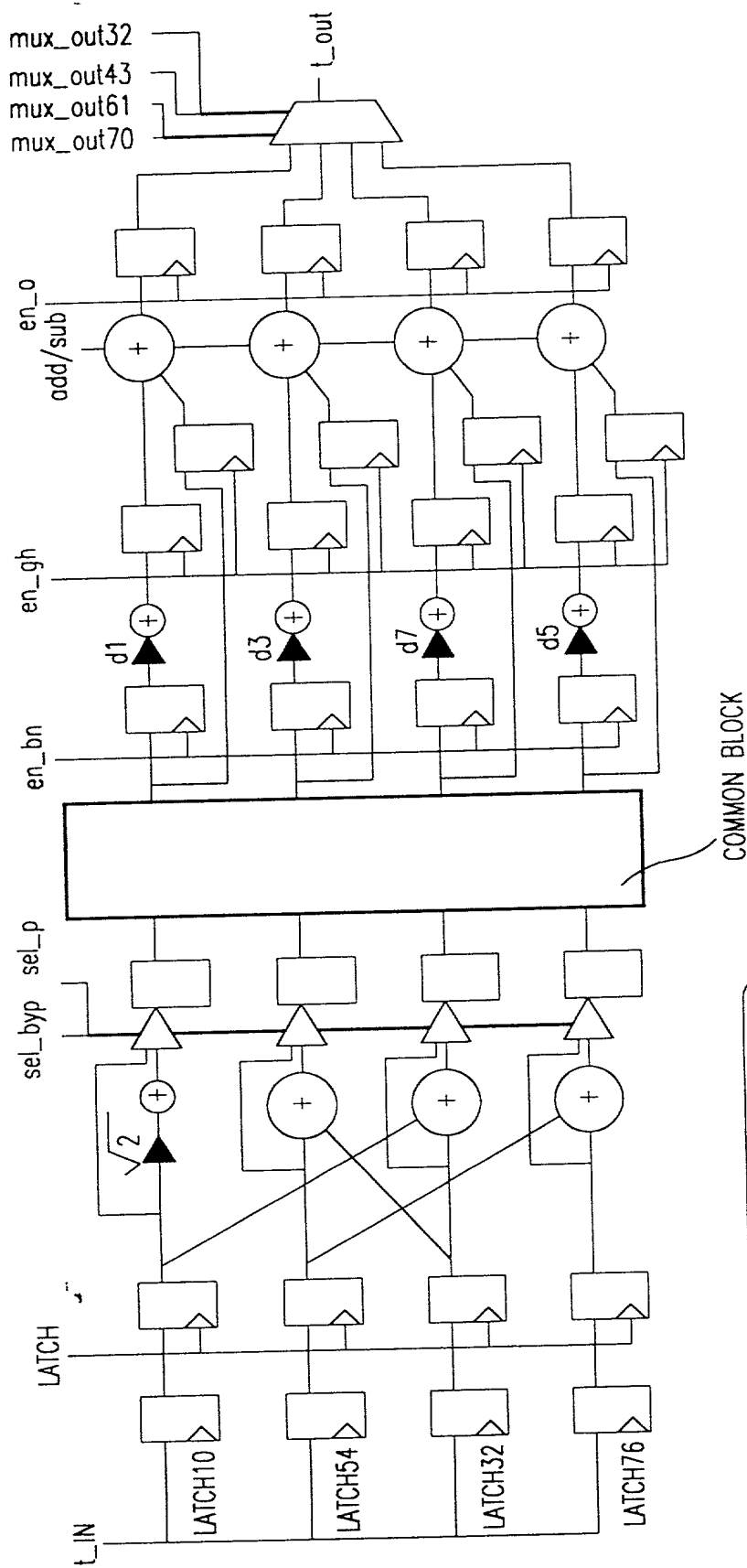


FIG. 140



NOTE: "COMMON BLOCK" IS ENTIRELY
COMBINATIONAL (NO LATCHING)

FIG. 14

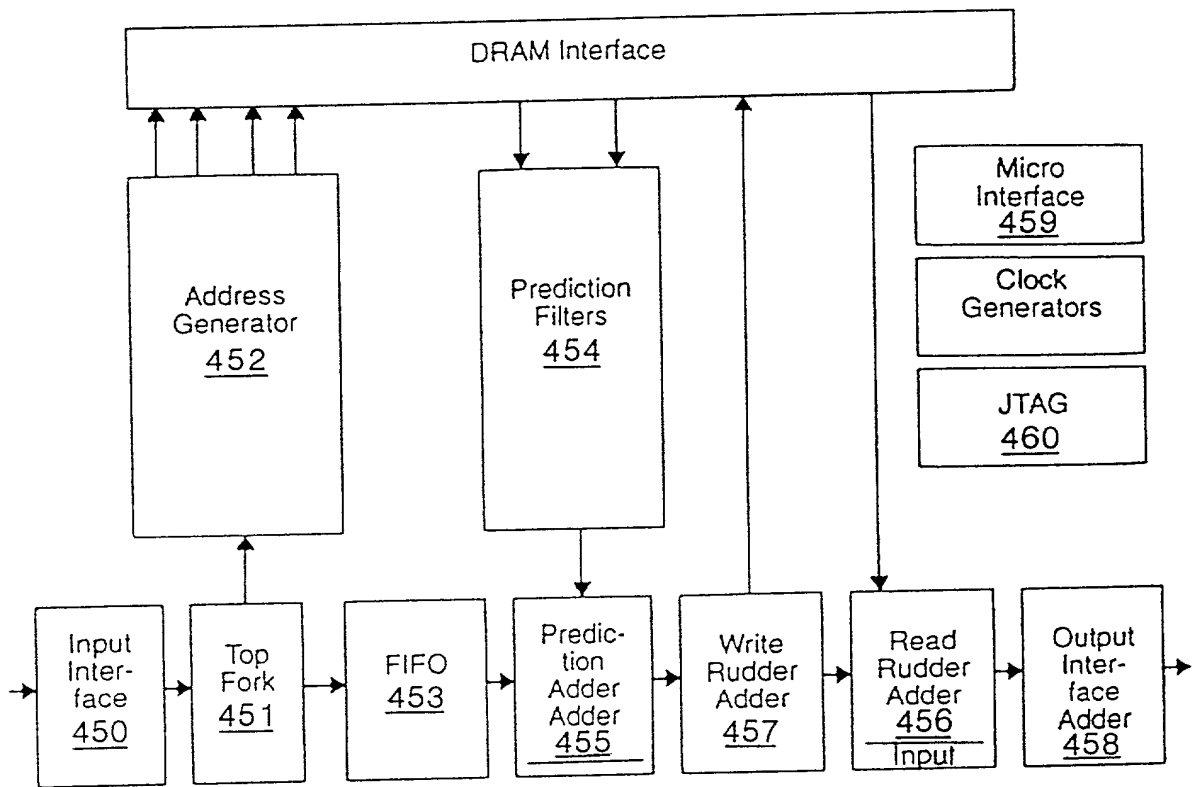


FIG. 142

Table 1. Demographic characteristics of the study population	
Age (years)	65.8 ± 1.2
Gender (male/female)	102/108
Education (years)	12.5 ± 0.5
Marital status (married/divorced/widowed)	150/30/20
Occupation (retired/employed)	150/30
Income (€ per month)	1,200 ± 150
Comorbidities (hypertension/diabetes/cholesterol)	120/40/60
Medication (antidepressants/antipsychotics)	80/20
Alcohol consumption (yes/no)	30/170
Smoking status (smoker/non-smoker)	20/180
Family history (depression/schizophrenia)	40/20
Previous hospitalizations (yes/no)	50/150
Current symptoms (anxiety/depression)	100/100
Functional status (independent/dependent)	150/30
Quality of life (SF-36 score)	45.0 ± 5.0
Healthcare utilization (GP visits/hospitalizations)	10/5
Health insurance (public/private)	180/20
Geographical location (urban/rural)	150/30
Religious beliefs (strong/weak)	100/80
Social support (strong/weak)	100/80
Stress levels (high/low)	80/100
Life satisfaction (high/low)	100/80
Overall health (good/poor)	150/30
Duration of illness (years)	10.0 ± 2.0
Onset of illness (acute/chronic)	100/80
Previous treatments (medication/therapy)	100/80
Current treatment (medication/therapy)	100/80
Response to treatment (yes/no)	80/20
Side effects (yes/no)	20/180
Adherence to treatment (yes/no)	100/80
Healthcare costs (€ per year)	1,000 ± 200
Healthcare satisfaction (high/low)	100/80
Healthcare accessibility (high/low)	100/80
Healthcare quality (high/low)	100/80
Healthcare safety (high/low)	100/80
Healthcare effectiveness (high/low)	100/80
Healthcare equity (high/low)	100/80
Healthcare transparency (high/low)	100/80
Healthcare accountability (high/low)	100/80
Healthcare responsibility (high/low)	100/80
Healthcare integrity (high/low)	100/80
Healthcare honesty (high/low)	100/80
Healthcare justice (high/low)	100/80
Healthcare kindness (high/low)	100/80
Healthcare compassion (high/low)	100/80
Healthcare empathy (high/low)	100/80
Healthcare respect (high/low)	100/80
Healthcare dignity (high/low)	100/80
Healthcare autonomy (high/low)	100/80
Healthcare privacy (high/low)	100/80
Healthcare confidentiality (high/low)	100/80
Healthcare security (high/low)	100/80
Healthcare stability (high/low)	100/80
Healthcare sustainability (high/low)	100/80
Healthcare resilience (high/low)	100/80
Healthcare adaptability (high/low)	100/80
Healthcare innovation (high/low)	100/80
Healthcare leadership (high/low)	100/80
Healthcare vision (high/low)	100/80
Healthcare mission (high/low)	100/80
Healthcare values (high/low)	100/80
Healthcare culture (high/low)	100/80
Healthcare climate (high/low)	100/80
Healthcare environment (high/low)	100/80
Healthcare community (high/low)	100/80
Healthcare network (high/low)	100/80
Healthcare system (high/low)	100/80
Healthcare organization (high/low)	100/80
Healthcare management (high/low)	100/80
Healthcare governance (high/low)	100/80
Healthcare strategy (high/low)	100/80
Healthcare policy (high/low)	100/80
Healthcare regulation (high/low)	100/80
Healthcare legislation (high/low)	100/80
Healthcare standards (high/low)	100/80
Healthcare guidelines (high/low)	100/80
Healthcare protocols (high/low)	100/80
Healthcare procedures (high/low)	100/80
Healthcare processes (high/low)	100/80
Healthcare practices (high/low)	100/80
Healthcare behaviors (high/low)	100/80
Healthcare attitudes (high/low)	100/80
Healthcare beliefs (high/low)	100/80
Healthcare values (high/low)	100/80
Healthcare ethics (high/low)	100/80
Healthcare law (high/low)	100/80
Healthcare ethics (high/low)	100/80
Healthcare philosophy (high/low)	100/80
Healthcare science (high/low)	100/80
Healthcare technology (high/low)	100/80
Healthcare innovation (high/low)	100/80
Healthcare research (high/low)	100/80
Healthcare education (high/low)	100/80
Healthcare training (high/low)	100/80
Healthcare development (high/low)	100/80
Healthcare improvement (high/low)	100/80
Healthcare excellence (high/low)	100/80
Healthcare quality (high/low)	100/80
Healthcare safety (high/low)	100/80
Healthcare effectiveness (high/low)	100/80
Healthcare equity (high/low)	100/80
Healthcare transparency (high/low)	100/80
Healthcare accountability (high/low)	100/80
Healthcare responsibility (high/low)	100/80
Healthcare integrity (high/low)	100/80
Healthcare honesty (high/low)	100/80
Healthcare justice (high/low)	100/80
Healthcare kindness (high/low)	100/80
Healthcare compassion (high/low)	100/80
Healthcare empathy (high/low)	100/80
Healthcare respect (high/low)	100/80
Healthcare dignity (high/low)	100/80
Healthcare autonomy (high/low)	100/80
Healthcare privacy (high/low)	100/80
Healthcare confidentiality (high/low)	100/80
Healthcare security (high/low)	100/80
Healthcare stability (high/low)	100/80
Healthcare sustainability (high/low)	100/80
Healthcare resilience (high/low)	100/80
Healthcare adaptability (high/low)	100/80
Healthcare innovation (high/low)	100/80
Healthcare leadership (high/low)	100/80
Healthcare vision (high/low)	100/80
Healthcare mission (high/low)	100/80
Healthcare values (high/low)	100/80
Healthcare culture (high/low)	100/80

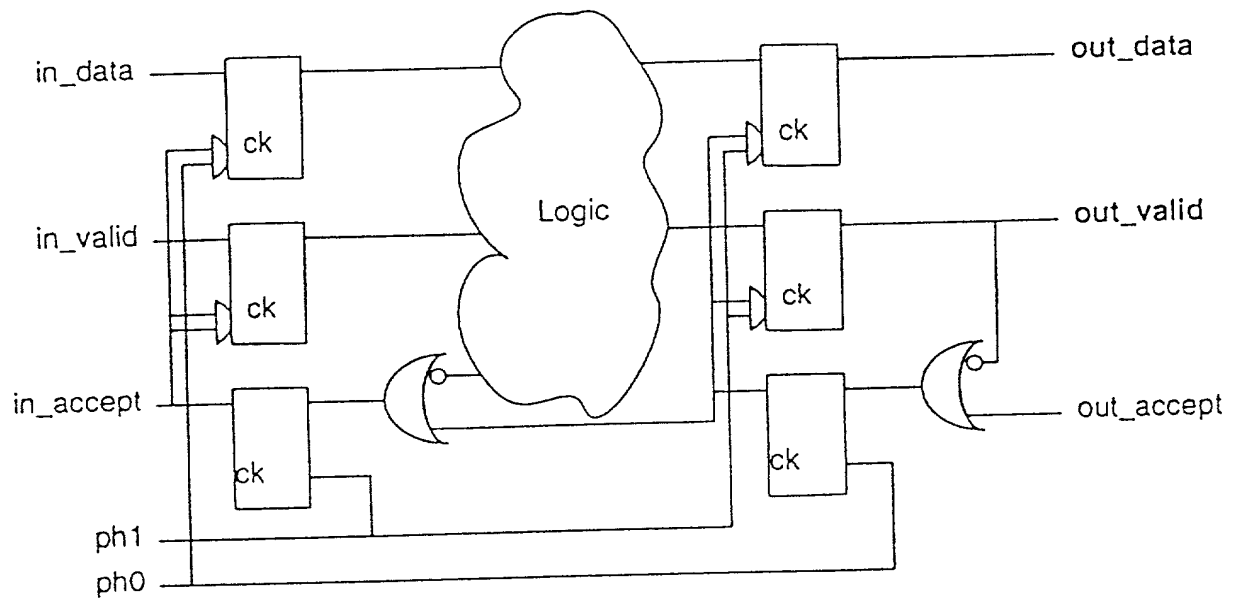


FIG. 143

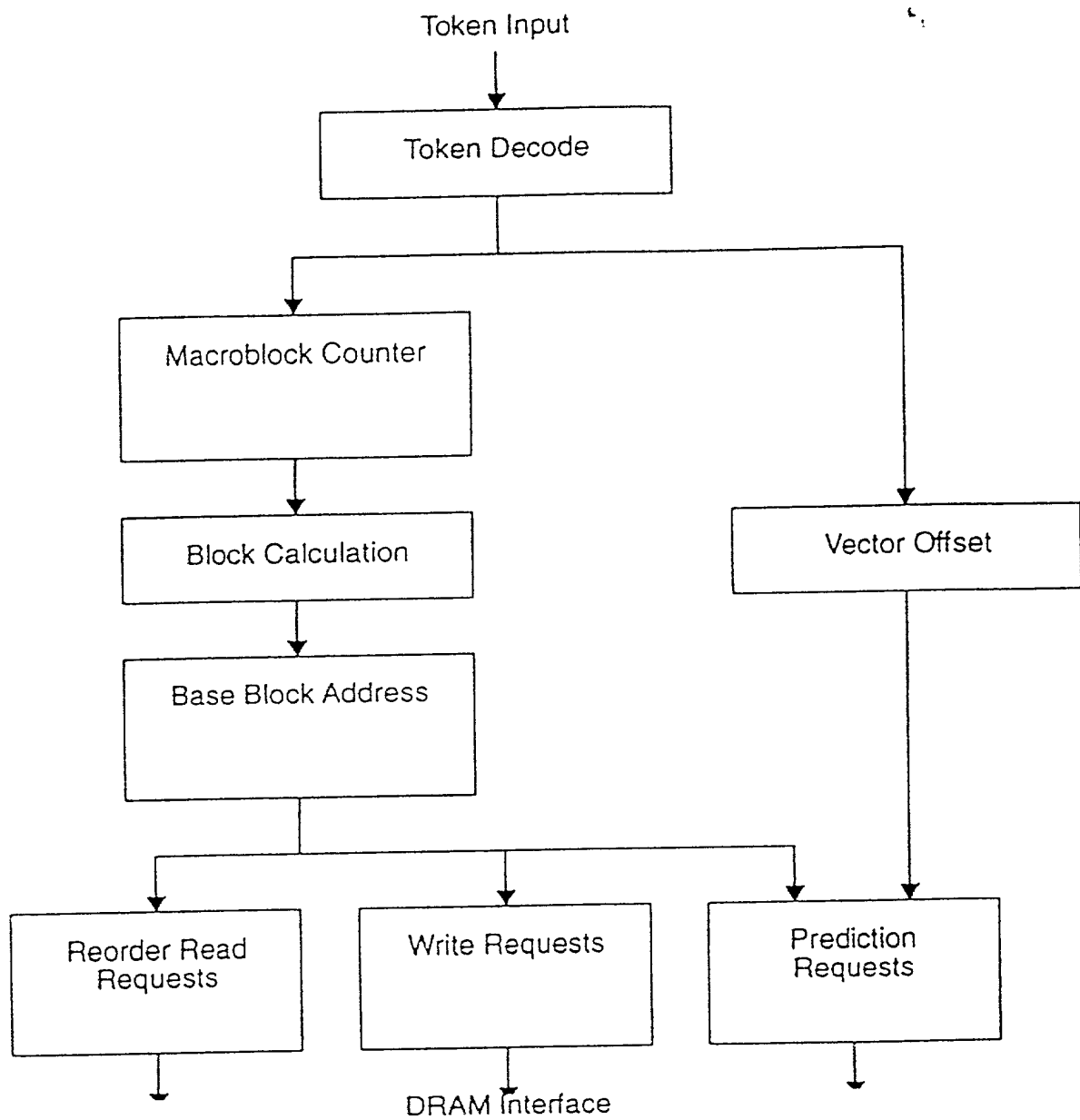


FIG. 144

09/9389 020301

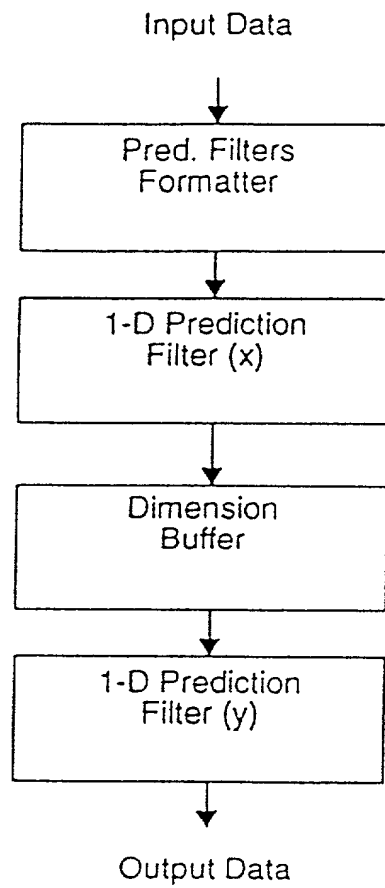


FIG. 147

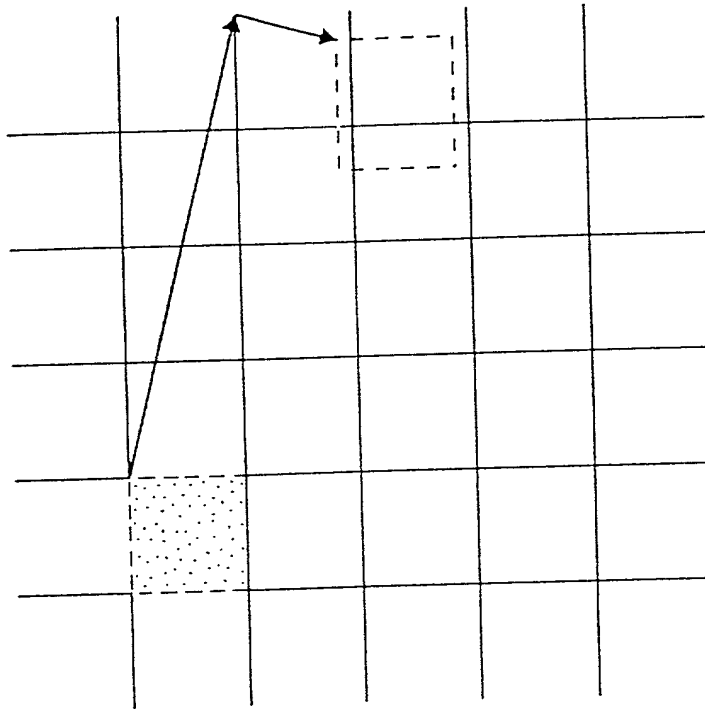


FIG. 145

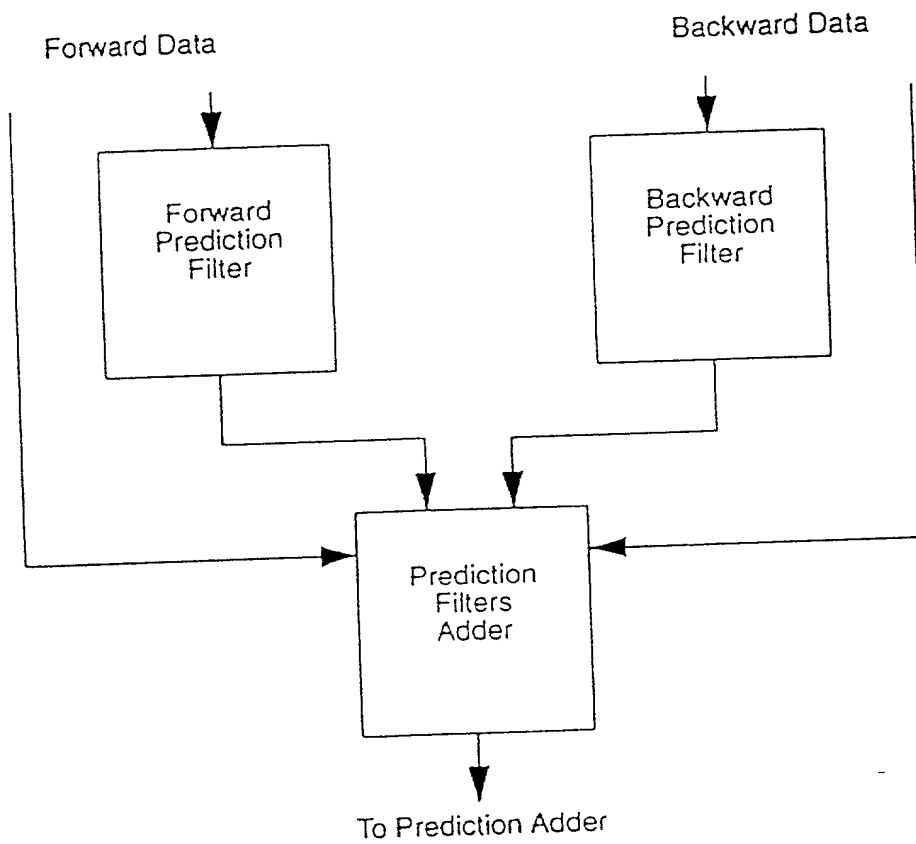


FIG. 146

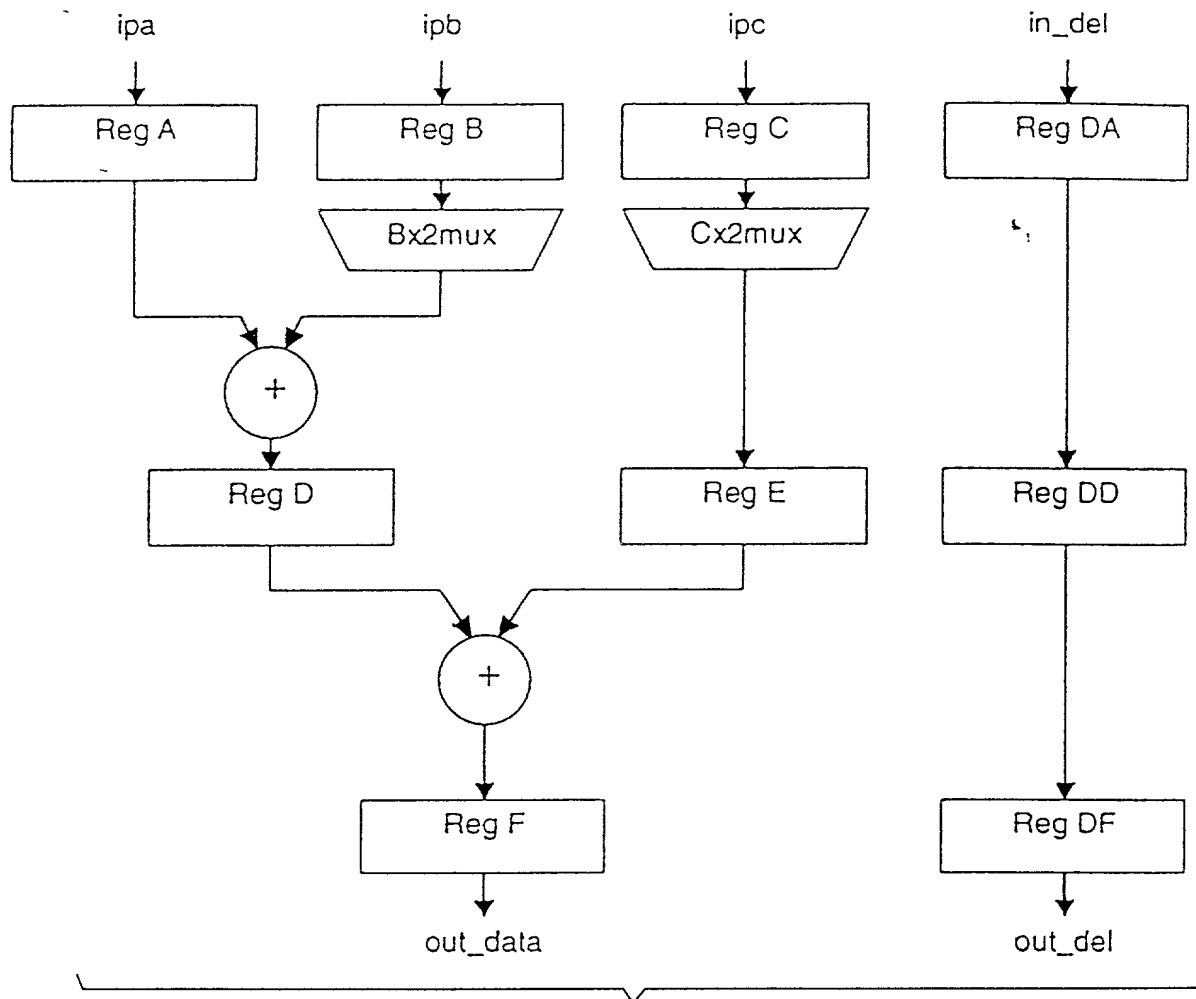


FIG. I 48

0	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63

FIG. I 49

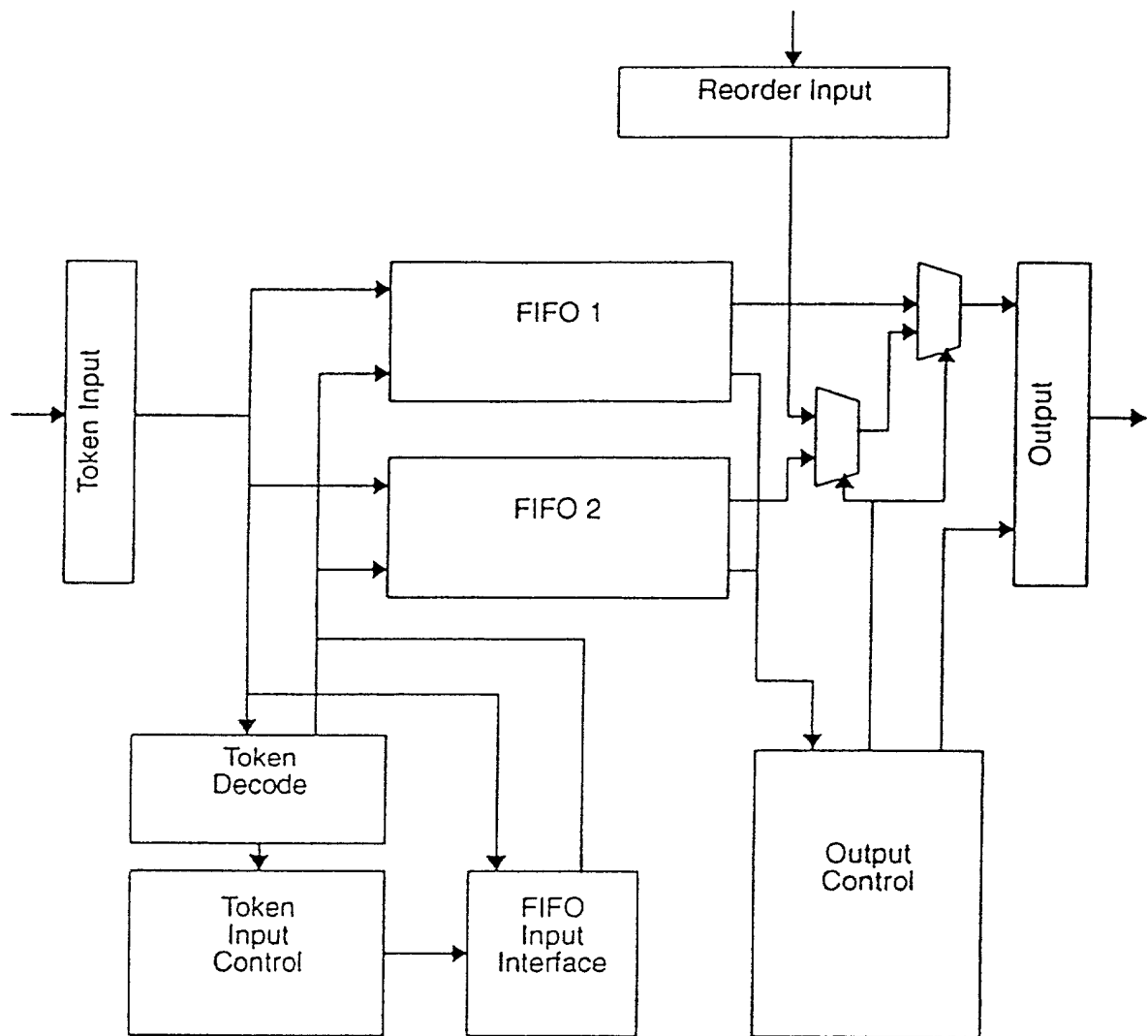


FIG. 150

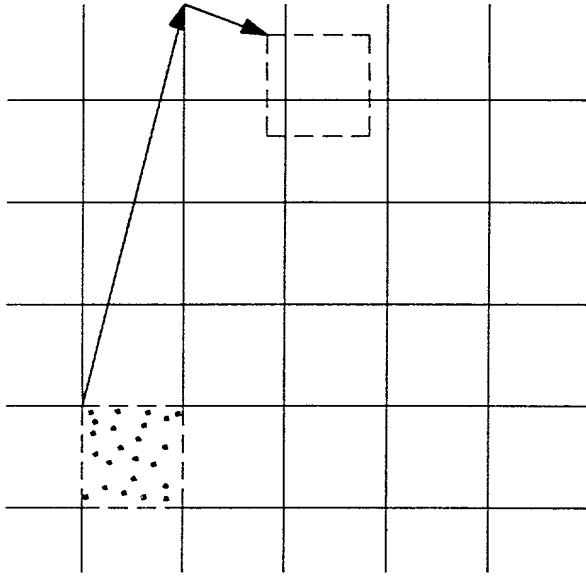


FIG. 151

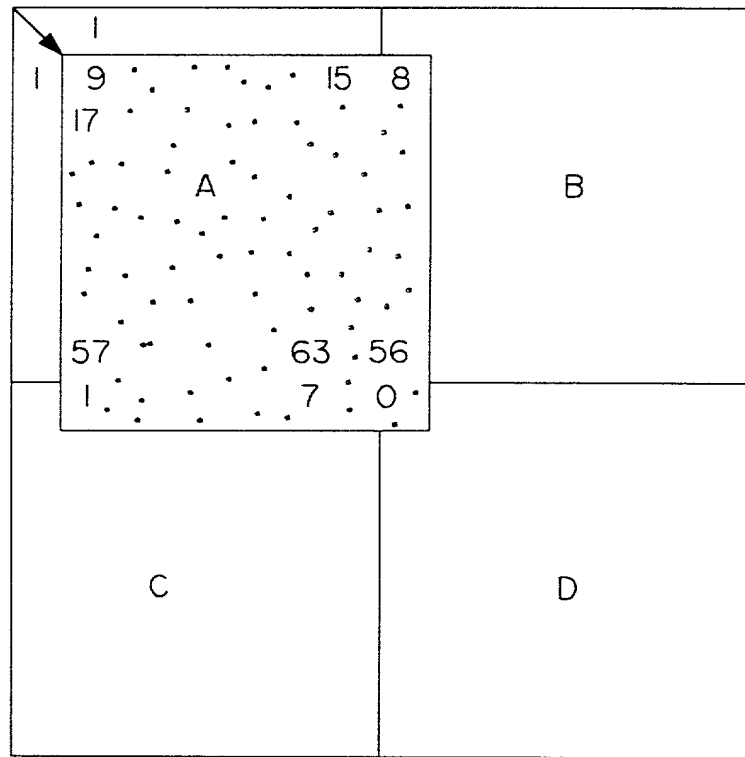


FIG. 152

09779383 000001

Read Cycle

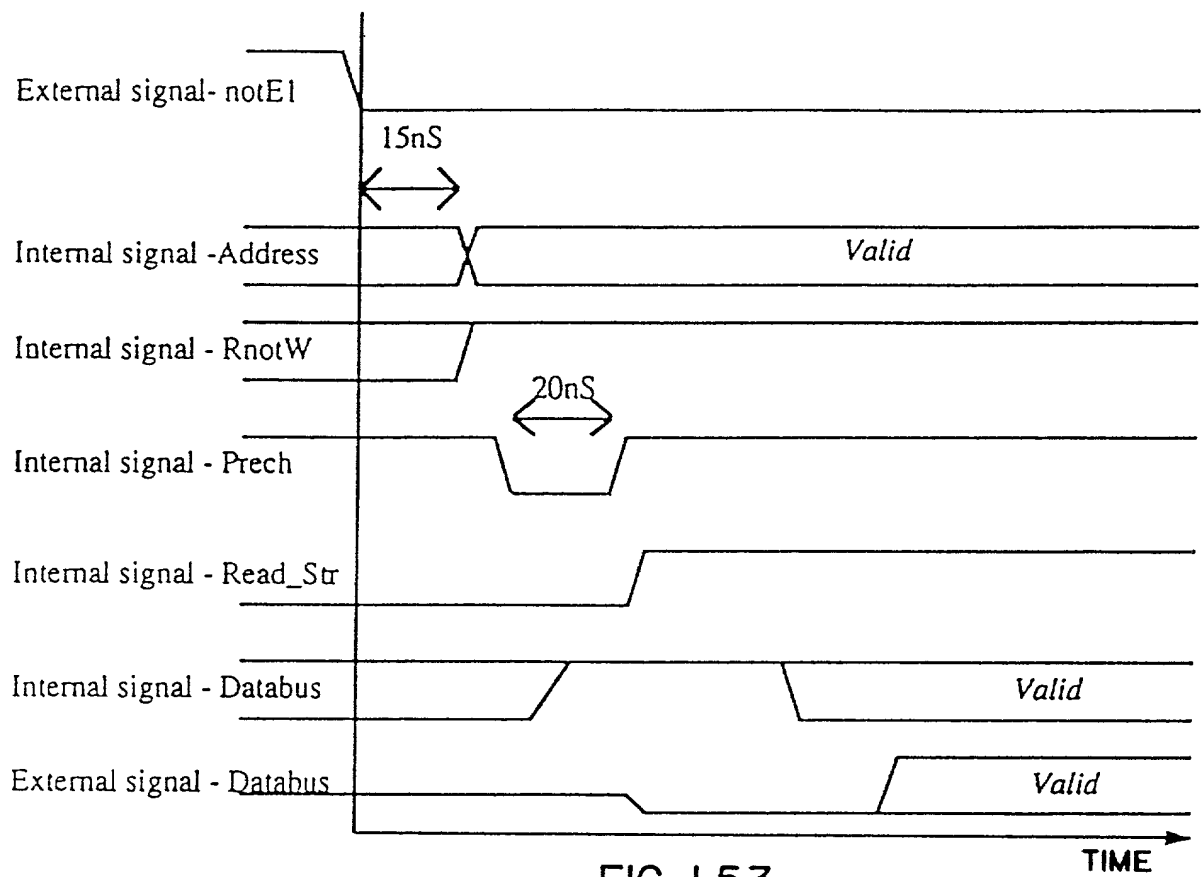


FIG. I 53

Write Cycle

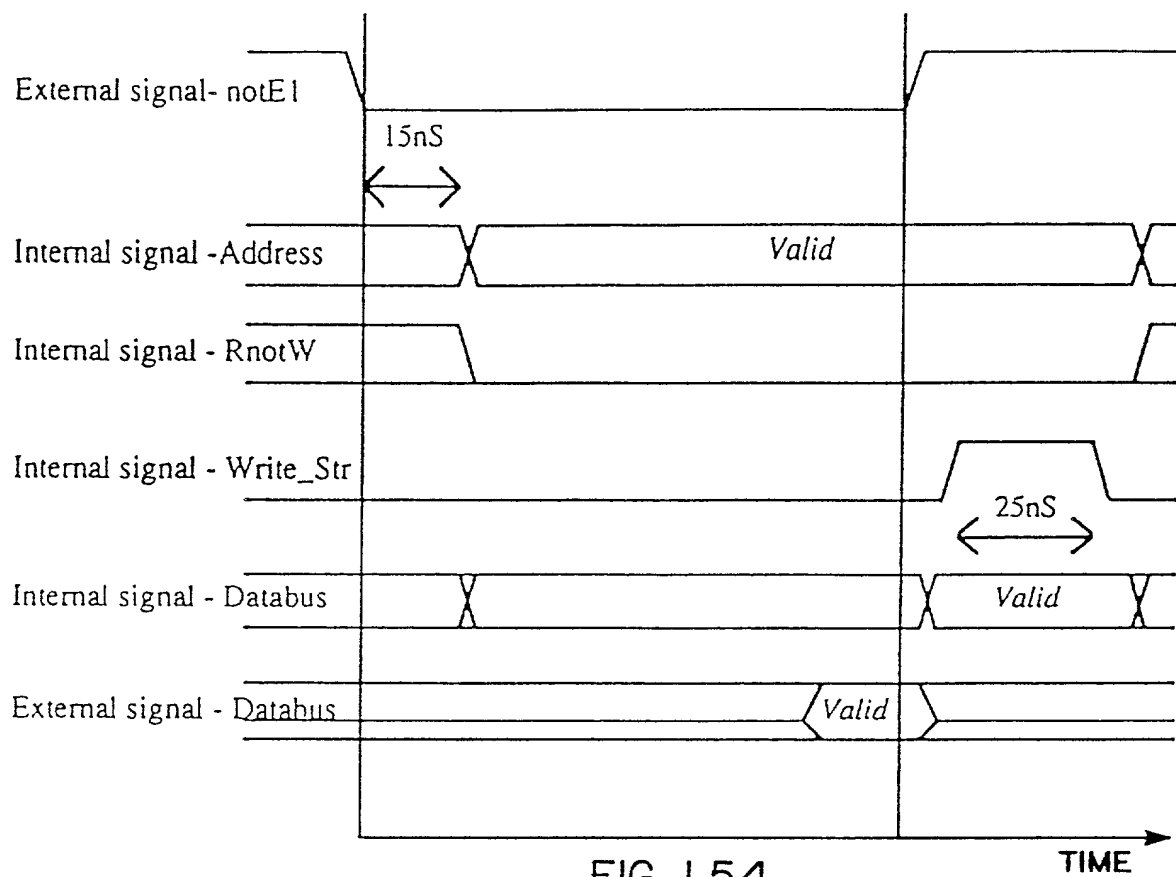


FIG. 154

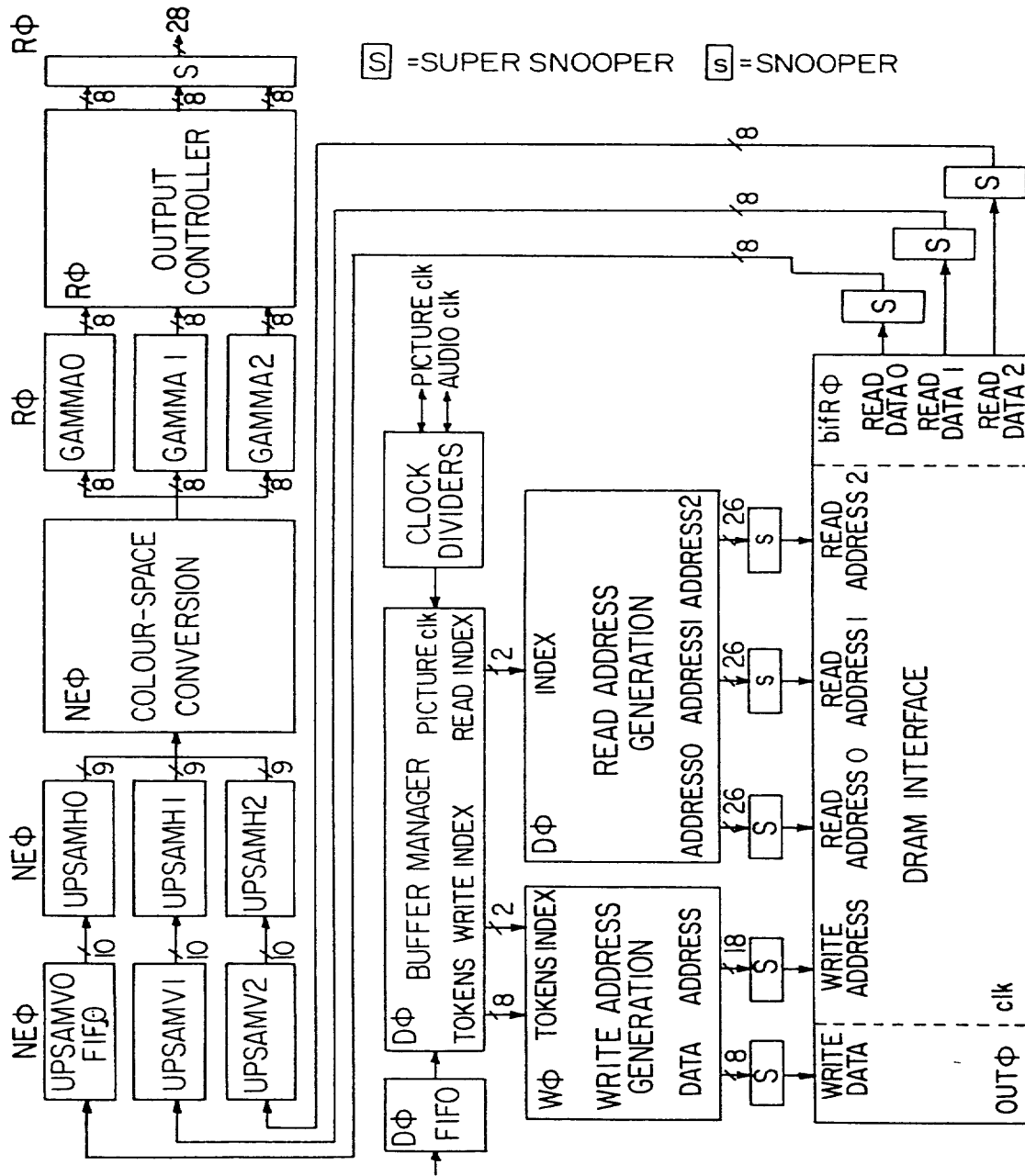


FIG. 155

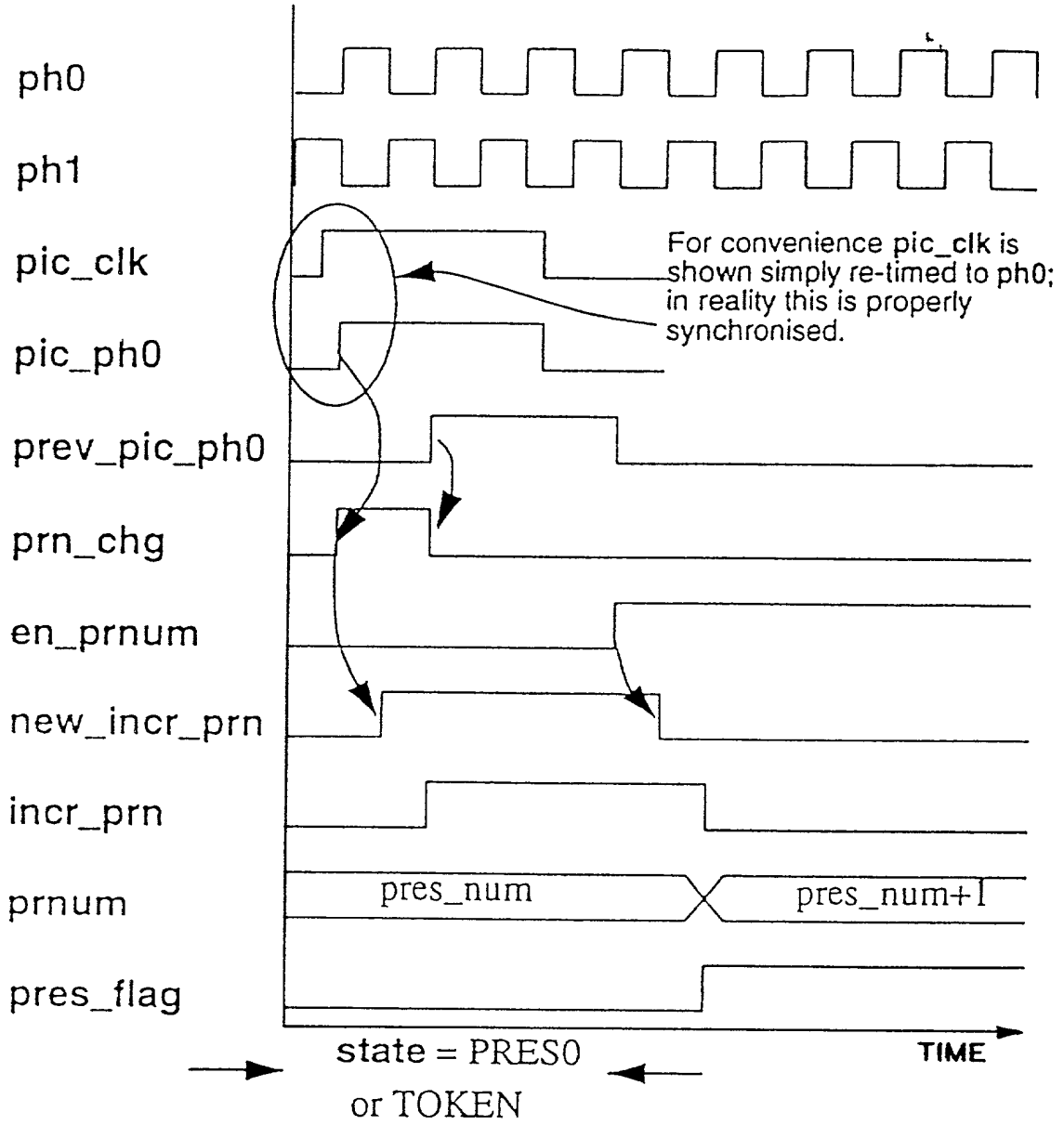


FIG. 156

FIG. 157

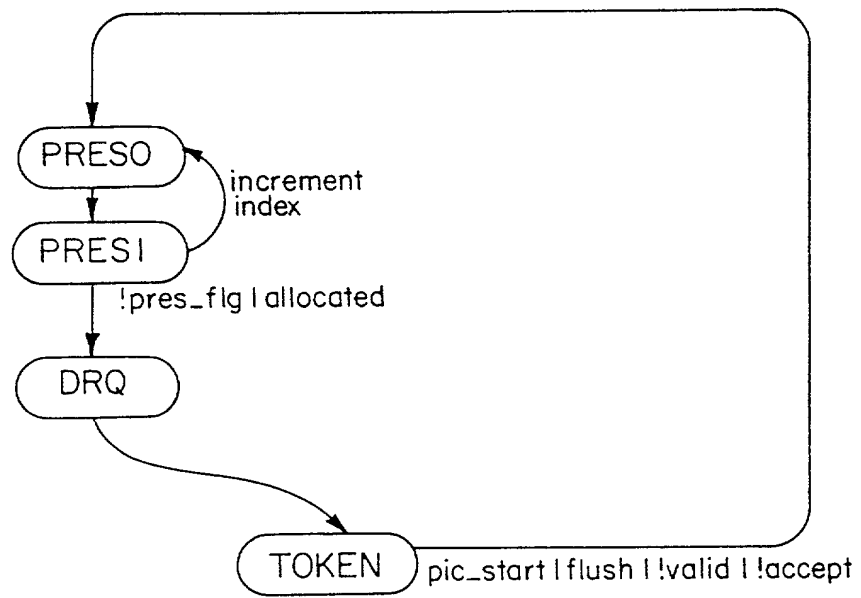


FIG. 158

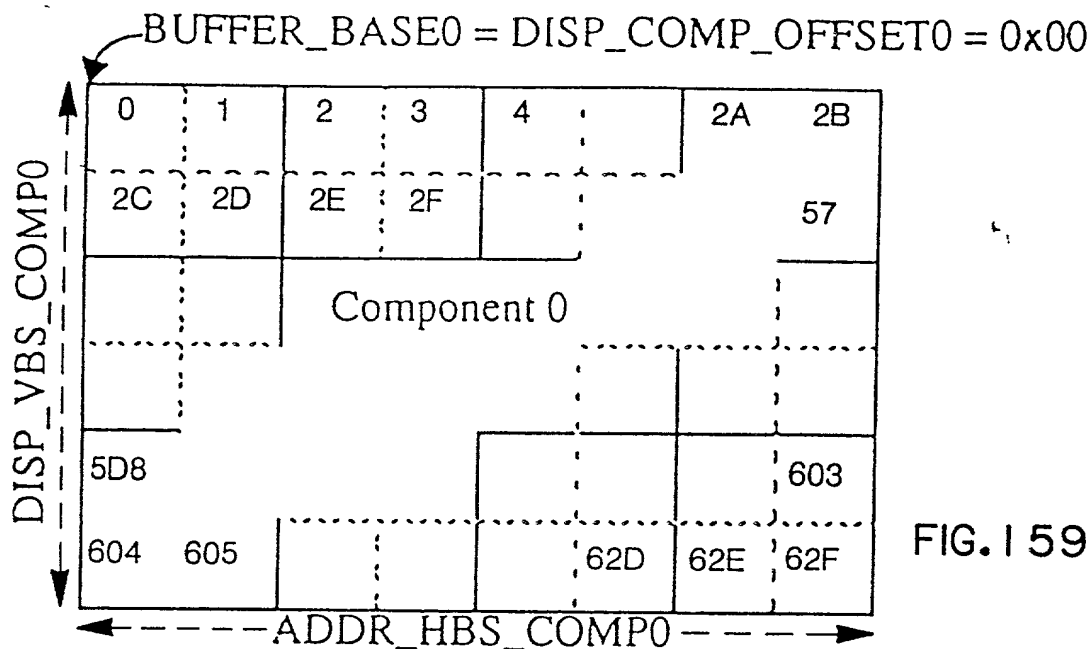


FIG. 159A

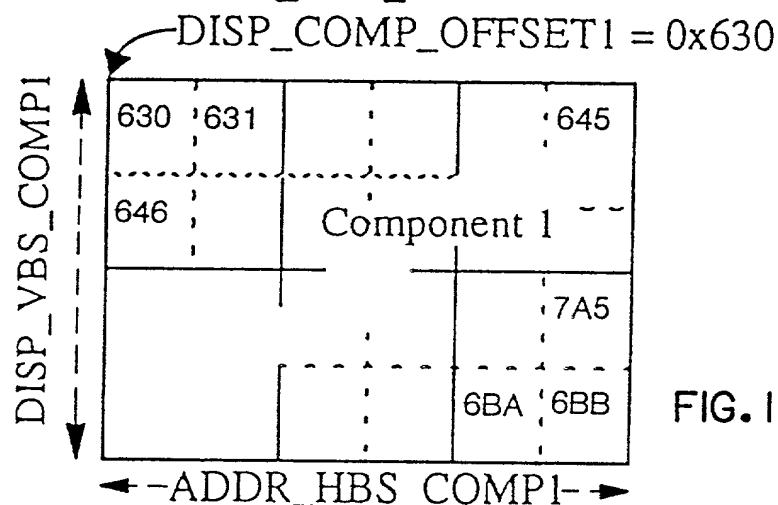


FIG. 159B

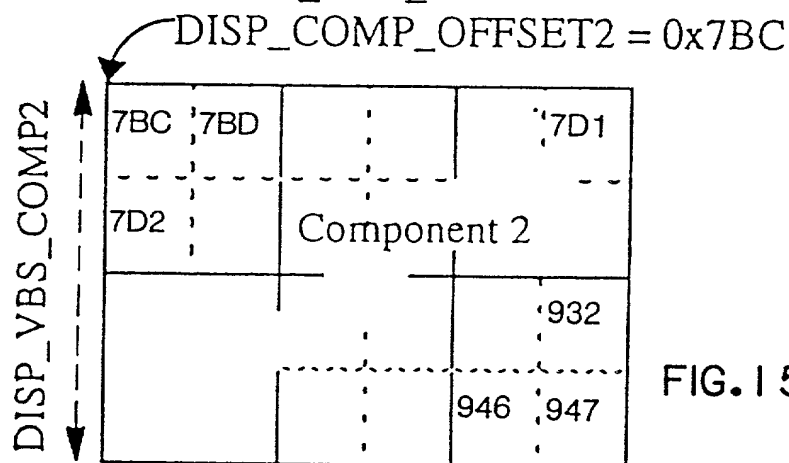


FIG. 159C

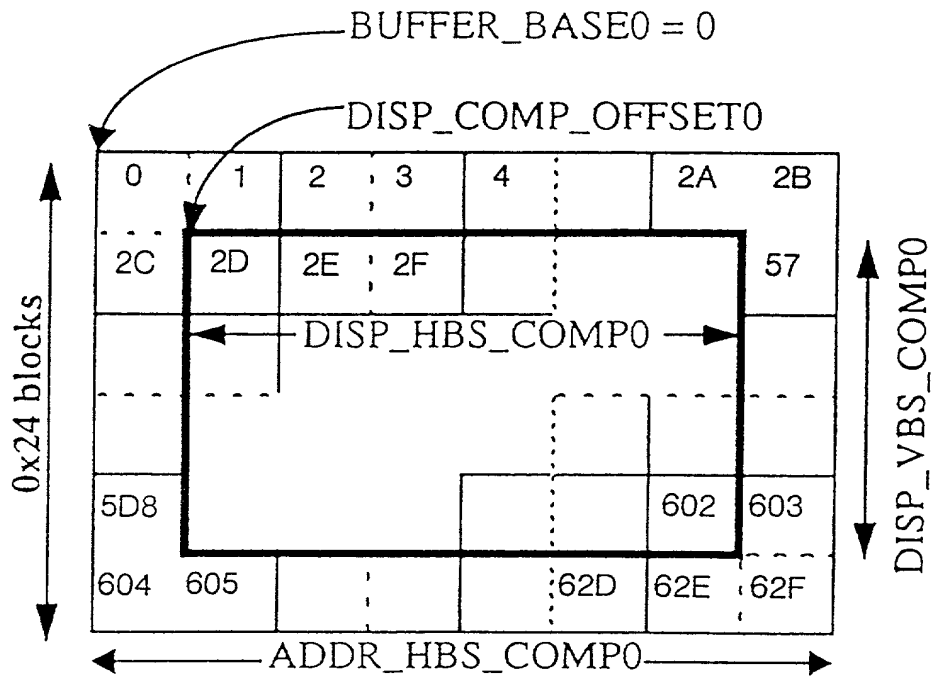


FIG. 160

BUFFER OFFSET 0x00

COMPONENT OFFSET 0x000 +

00	01	02	03	04	05	06	07	08	09	0A	0B
0C	0D	0E	0F	10	11	12	13	14	15	16	17
18	19	1A	1B	1C	1D	1E	1F	20	21	22	23
24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
30	31	32	33	34	35	36	37	38	39	3A	3B
3C	3D	3E	3F	40	41	42	43	44	45	46	47
48	49	4A	4B	4C	4D	4E	4F	50	51	52	53
54	55	56	57	58	59	5A	5B	5C	5D	5E	5F
60	61	62	63	64	65	66	67	68	69	6A	6B
6C	6D	6E	6F	70	71	72	73	74	75	76	77
78	79	7A	7B	7C	7D	7E	7F	80	81	82	83
84	85	86	87	88	89	8A	8B	8C	8D	8E	8F

FIG. 16 | A

COMPONENT1 OFFSET 0x100 +

00	01	02	03	04	05
06	07	08	09	0A	0B
0C	0D	0E	0F	10	11
12	13	14	15	16	17
18	19	1A	1B	1C	1D
1E	1F	20	21	22	23

FIG. 16 | B

COMPONENT1 OFFSET 0x200 +

00	01	02	03	04	05
06	07	08	09	0A	0B
0C	0D	0E	0F	10	11
12	13	14	15	16	17
18	19	1A	1B	1C	1D
1E	1F	20	21	22	23

FIG. 16 | C

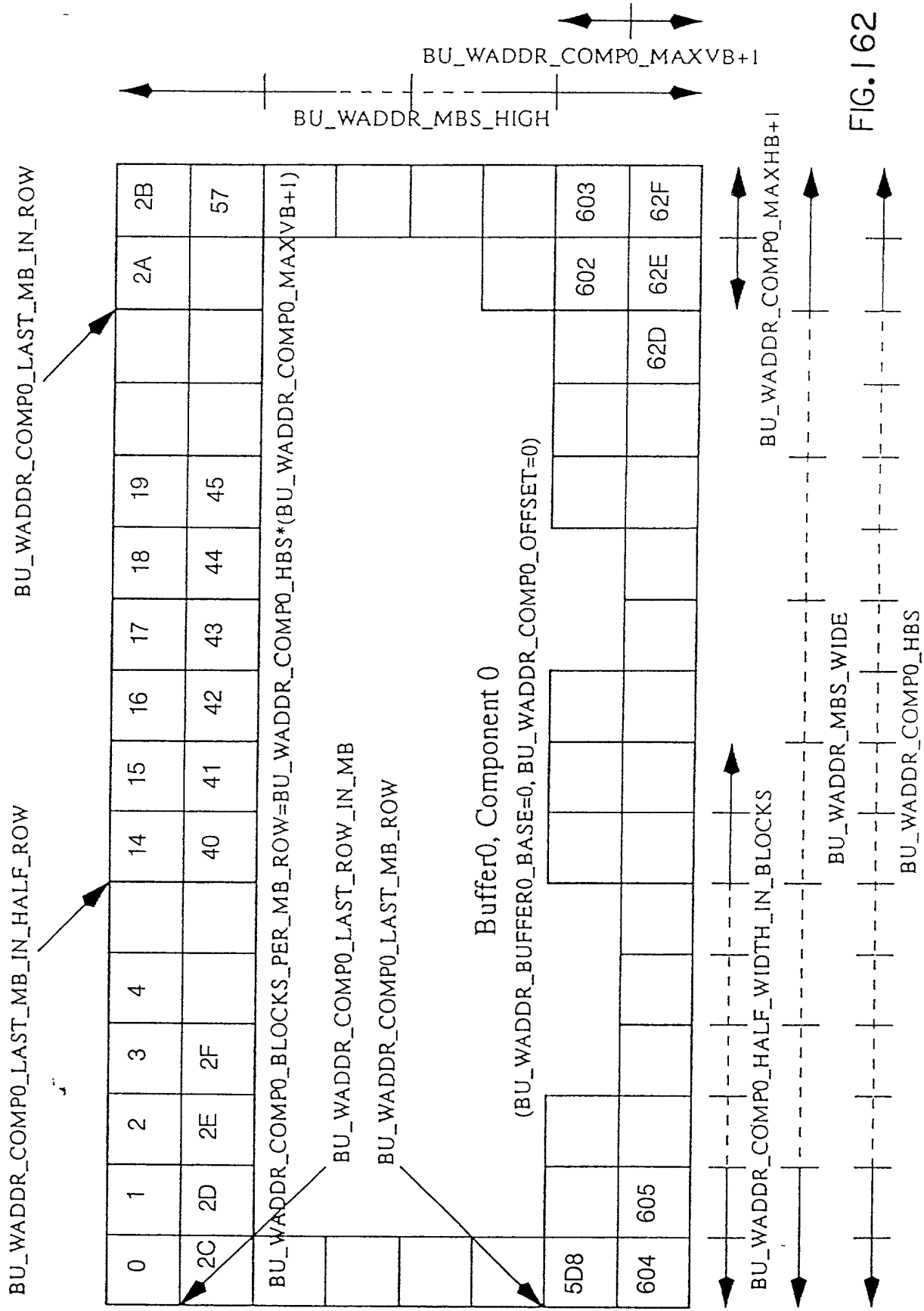


FIG. 162

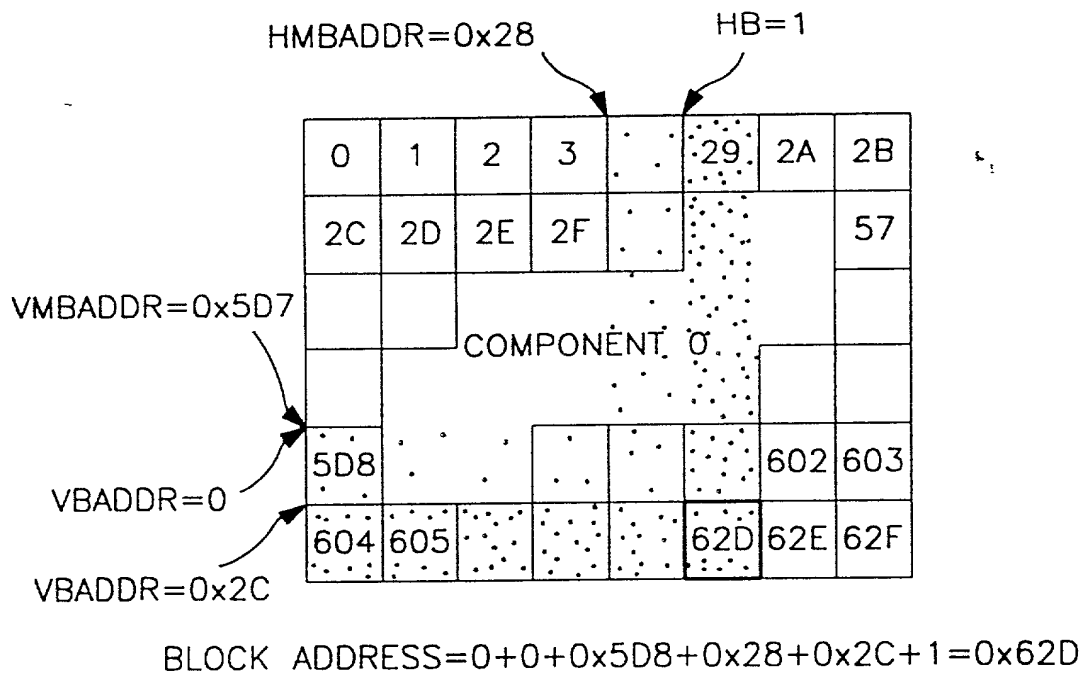


FIG. 1 63A

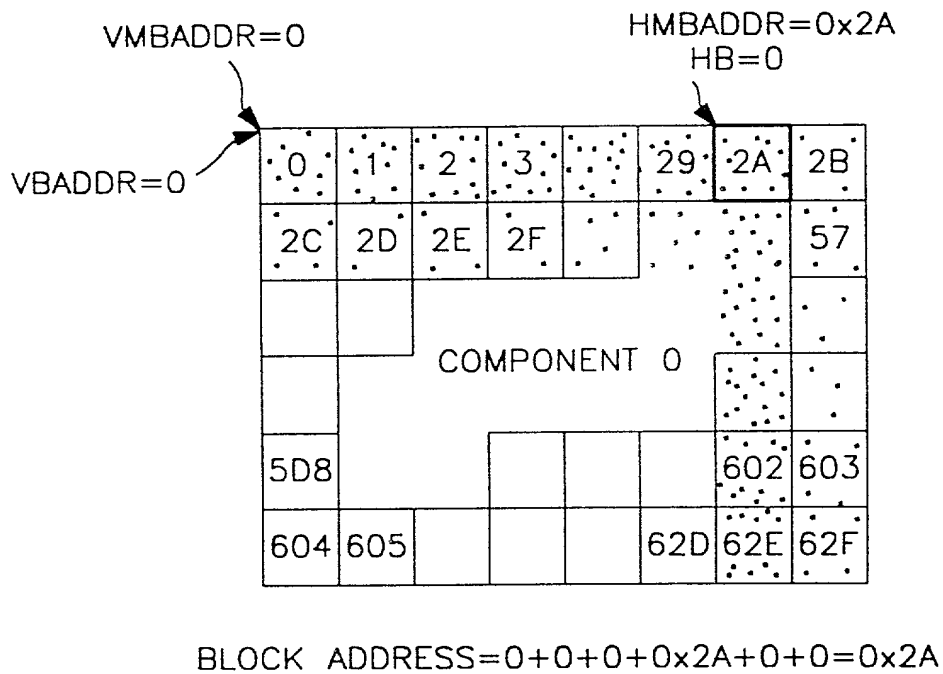
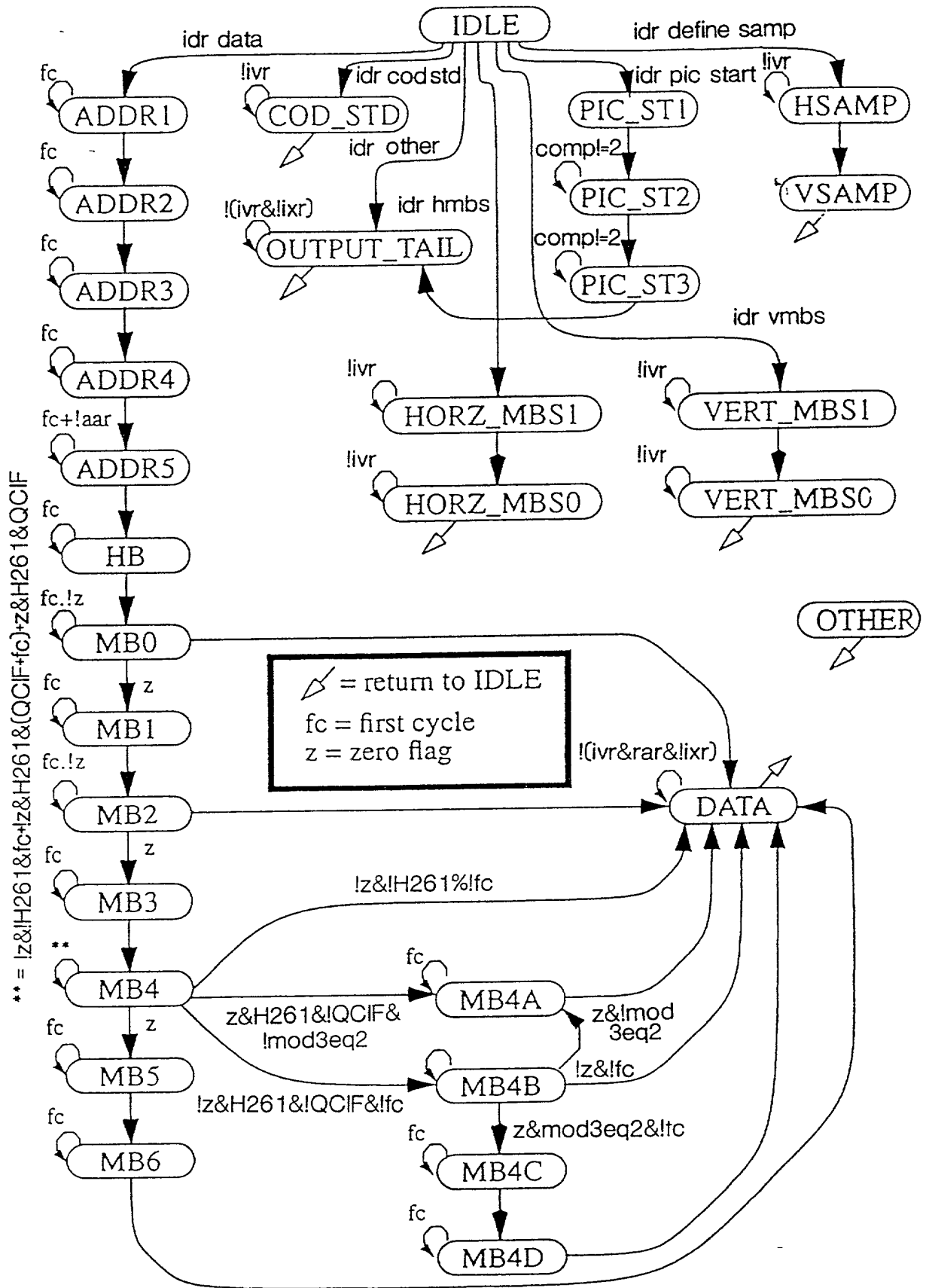


FIG. 1 63B



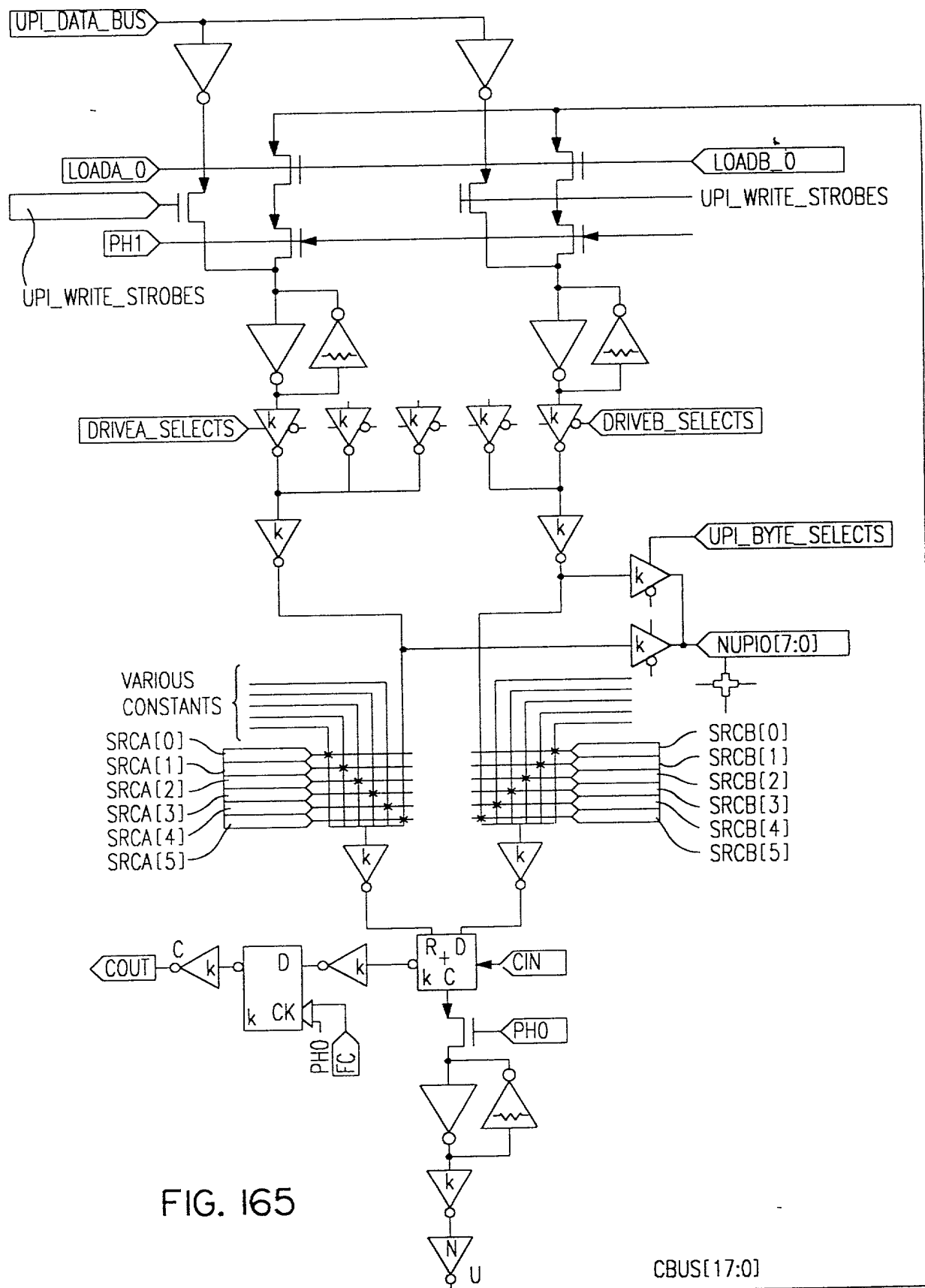


FIG. 165

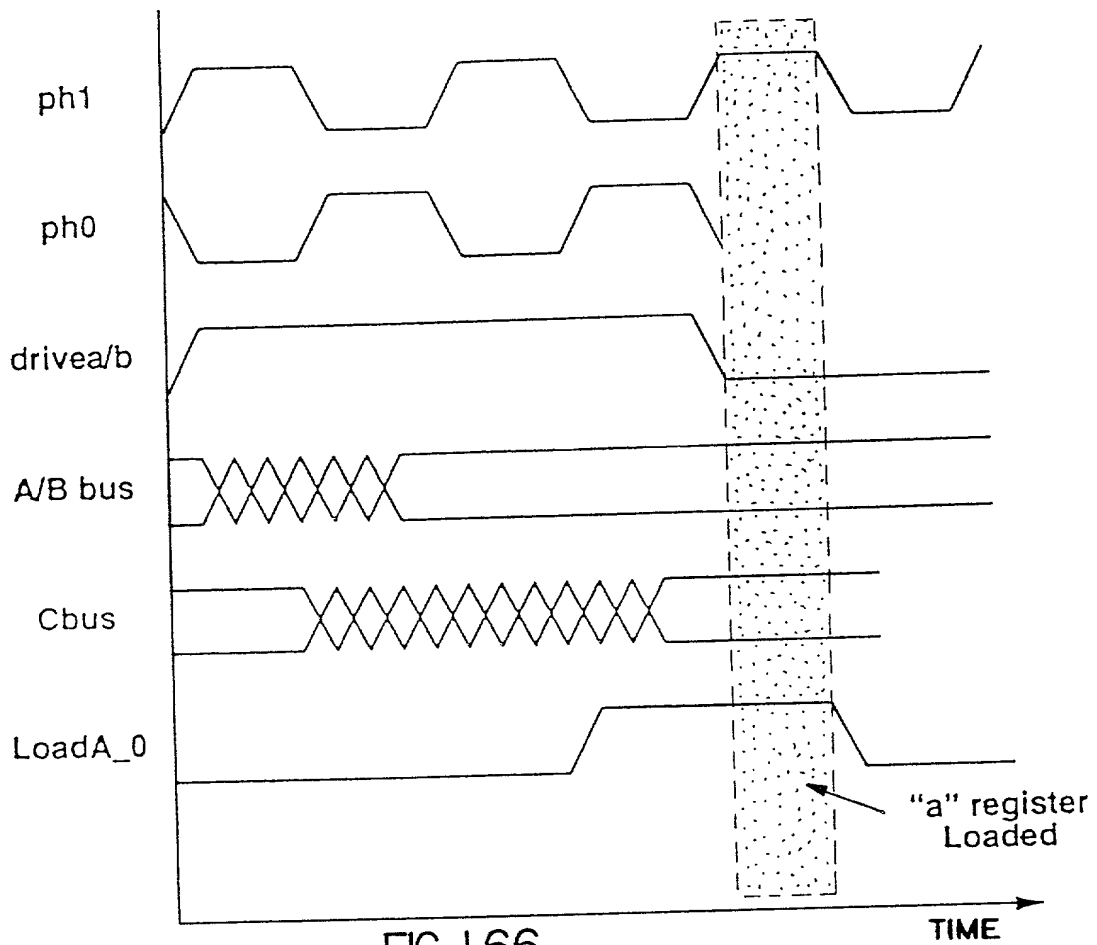


FIG. 166

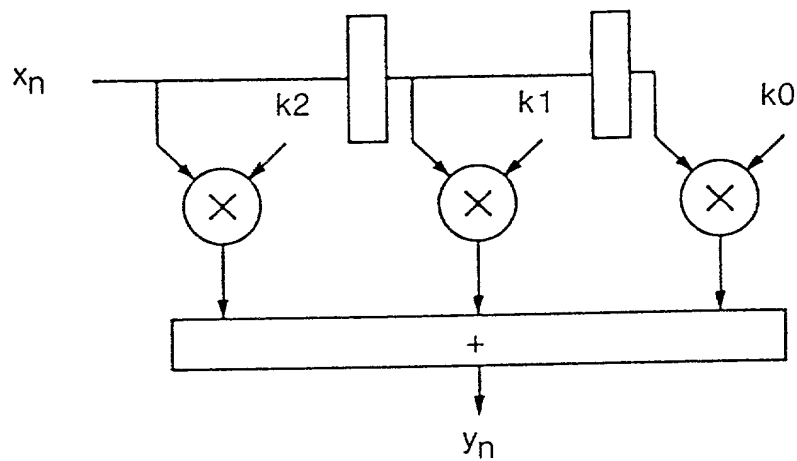


FIG. 167

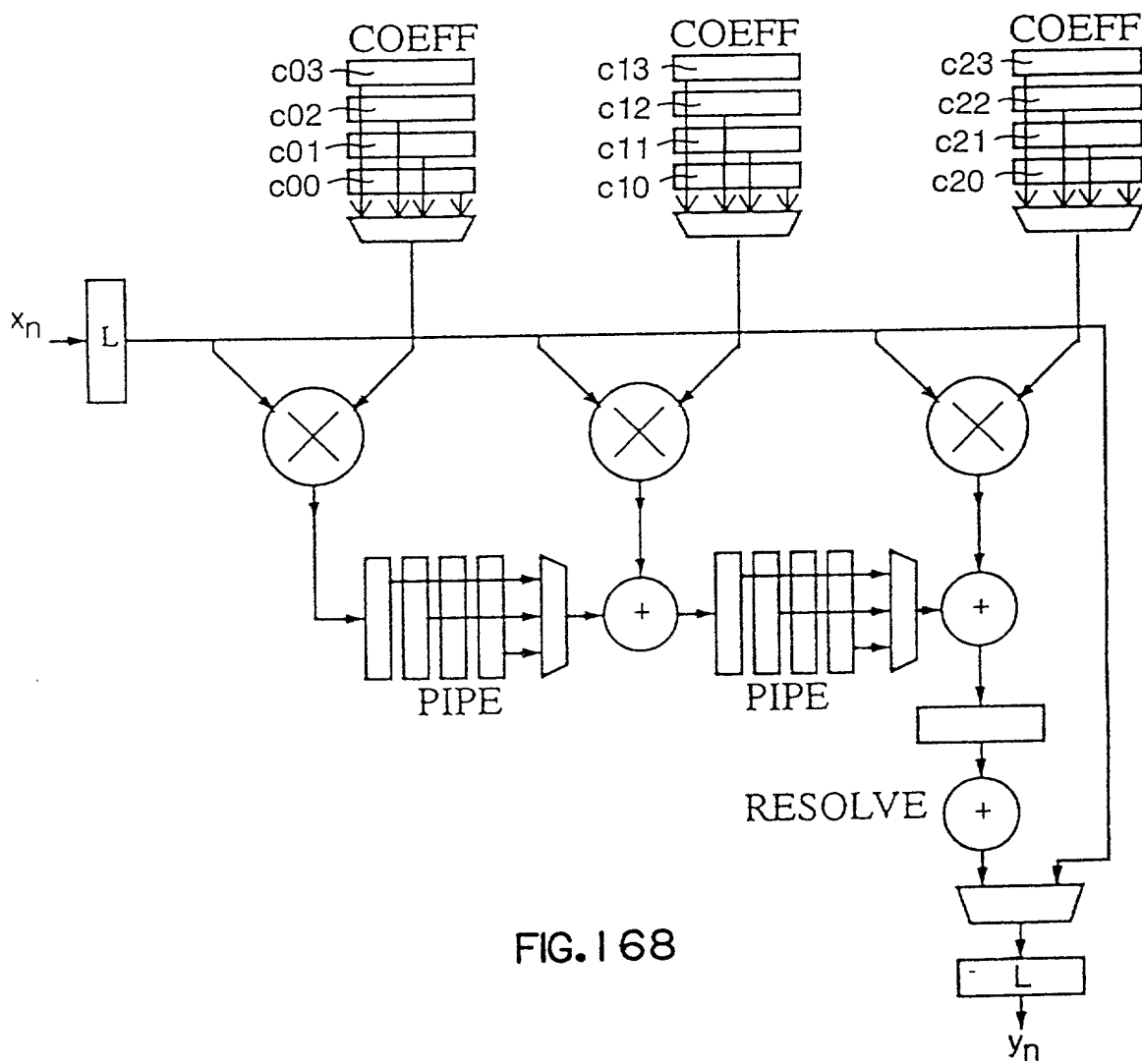


FIG. 168

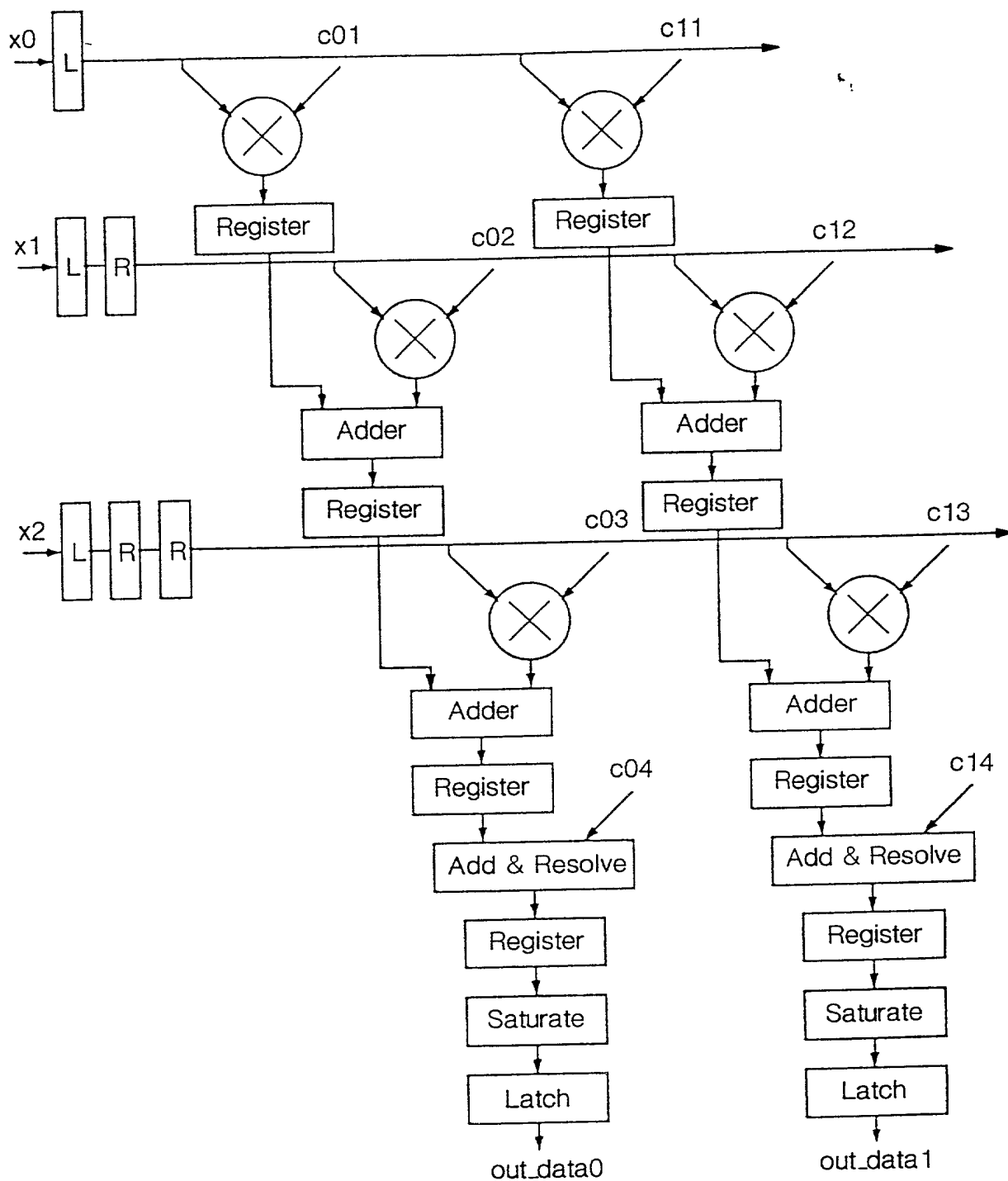


FIG. 1 69